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The role of technology in Adolescent Dating Violence and Abuse

Stonard, Karlie

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The Role of Technology in Adolescent Dating Violence and Abuse

By

Karlie Emma Stonard

Ph.D. Psychology

November 2016



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***A thesis submitted in partial fulfilment of the University's
requirements for the Degree of Doctor of Philosophy in the
subject of Psychology***

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Abstract

The present research was undertaken to examine the role of Electronic Communication Technology (ECT) in Adolescent Dating Violence and Abuse (ADVA) or what has been termed Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA) and potential correlates using a quantitative research design. This is the first detailed study of TAADVA that has been conducted with British adolescents in the United Kingdom (UK). A new set of questions to explore TAADVA was developed and piloted with adolescents using a robust framework. Adolescents ($n = 469$; 52% ($n = 245$) female; 59% ($n = 277$) who had past year dating relationship experience) aged 12-18 years recruited from secondary schools, youth clubs and via snowballing methods, completed a battery of questionnaires regarding their personal experience of TAADVA, physical and controlling ADVA, friend experience of ADVA and TAADVA, attachment style, relationship experience, and relationship closeness. It was found that TAADVA was prevalent (73% for victimisation and 50% for instigation across 12 types of behaviour) and was experienced via a range of ECT methods, often encompassing multiple behaviours. Although there was some overlap between ADVA and TAADVA, TAADVA was more prevalent than ADVA. Additionally, it was found that ECT appears to create new victims and/or instigators of TAADVA only as around two-thirds of adolescents who experienced TAADVA did not also experience ADVA offline. Adolescents reported experiences of TAADVA (and ADVA) victimisation *and* instigation. Females however, reported more sexual TAADVA victimisation (i.e. sexting pressure) and victimisation-only experiences of sexual TAADVA than did males. Females involved in TAADVA and ADVA reported having more friends with dating violence experience (as either victims or instigators). In contrast, only males who reported ADVA involvement reported having more friends who instigated dating violence. Avoidant attachment independently predicted TAADVA involvement for males, and further analysis revealed that TAADVA involved males reported higher avoidant attachment to a mother and friend than those not involved in TAADVA. Females involved in TAADVA reported higher avoidant attachment to a mother and father and this was also the case for ADVA in terms of anxious attachment. Furthermore, avoidant attachment to mother mediated the relationship between friend historical dating violence (victimisation and instigation) and self-reported TAADVA for females. Moreover, paternal anxious attachment mediated the relationship between friend current dating violence instigation and self-reported ADVA for females. Implications of the findings are discussed and recommendations are made for future policy, practice and research.

List of Acronyms

ADVA: Adolescent Dating Violence and Abuse	PDRS: Perpetration in Dating Relationships Scale
CADRI: Conflict in Adolescent Dating Relationships Inventory	PM: Picture Message
CBS: Controlling Behaviours Scale	R-CTS: Revised-Conflict Tactics Scale
CCV: Coercive Controlling Violence	SCV: Situational Couple Violence
CDC: Centers for Disease Control and Prevention	SIV: Separation-Instigated Violence
CI: Confidence Intervals	SLT: Social Learning Theory
CPS: Child Protection Services	SNS: Social Networking Site(s)
CR: Chatroom	TAADVA: Technology-Assisted Adolescent Dating Violence and Abuse
CSDS: Children's Social Desirability Scale	TM: Text Message
CTS: Conflict Tactics Scale	URCS: Unidimensional Relationship Closeness Scale
DAIP: Domestic Abuse Intervention Project	USV: Unilateral Situational Violence
ECRS: Experiences in Close Relationships Scale	UVC: Unilateral Violent Control
ECT: Electronic Communication Technology	VC: Video Chat
EM: Email	VC-VR: Violent Control-Violent Resistance
IDVS: International Dating Violence Study	VDRS: Victimization in Dating Relationships Scale
IGTT: Intergenerational Transmission Theory	VIF: Variance Inflation Factor
IM: Instant Messenger	VIFFA: Violence faite aux Filles dans les Fréquentations à l'Adolescence
IPV: Intimate Partner Violence	VR: Violent Resistance
IT: Intimate Terrorism	WB: Website/Blog
IWM: Internal Working Models	YRBS: Youth Risk Behavior Survey
KMO: Kaiser-Meyer-Olkin	
MCSDS: Marlow-Crowne Social Desirability Scale	
M-CTS: Modified Conflict Tactics Scale	
MSV: Mutual Situational Violence	
MVC: Mutual Violent Control	
NCDSV: National Center of Domestic and Sexual Violence	
ONS: Office for National Statistics	
PAPC: Psychological Adjustment and Personal Competencies	
PC: Phone Call	

Contents

ABSTRACT	5
LIST OF ACRONYMS	6
CONTENTS	7
INTRODUCTION	10
BACKGROUND	10
RATIONALE AND AIMS	12
STRUCTURE OF THE THESIS	13
CHAPTER 1: THE ROLE OF ELECTRONIC COMMUNICATION TECHNOLOGY IN THE NATURE, PREVALENCE AND IMPACT OF ADOLESCENT DATING VIOLENCE AND ABUSE: A RESEARCH SYNTHESIS	14
1.1. INTRODUCTION	14
1.2. ADOLESCENCE AND ADOLESCENT ROMANTIC RELATIONSHIPS	14
1.2.1. <i>The role of ECT in adolescent romantic relationships</i>	15
1.3. THE DEFINING ADVA AND TAADVA	18
1.4. METHODOLOGY FOR REVIEW	22
1.5. PREVALENCE OF ADVA.....	24
1.5.1. <i>Physical ADVA</i>	24
1.5.2. <i>Psychological and emotional ADVA</i>	39
1.5.3. <i>Sexual ADVA</i>	46
1.5.4. <i>Summary</i>	51
1.6. PREVALENCE OF TAADVA	55
1.6.1. <i>TAADVA victimisation and instigation</i>	56
1.6.2. <i>Method of ECT used in TAADVA</i>	62
1.6.3. <i>Continuum of Abuse?</i>	63
1.6.4. <i>Methodological factors relevant to the interpretation of prevalence data</i>	64
1.6.5. <i>Summary</i>	65
1.7. THE RELEVANCE OF ECT TO THE PSYCHOLOGICAL IMPACT OF TAADVA.....	66
1.8. DISCUSSION	71
1.8.1. <i>Limitations and strengths</i>	73
1.9. CONCLUSION	74
CHAPTER 2: EXPLAINING ADOLESCENT DATING VIOLENCE AND ABUSE AND TECHNOLOGY-ASSISTED ADOLESCENT DATING VIOLENCE AND ABUSE: RISK FACTORS AND CORRELATES	75
2.1. INTRODUCTION	75
2.2. TRAJECTORIES OF ADVA	75
2.3. TYPOLOGIES OF ADVA	76
2.3.1. <i>Summary</i>	83
2.4. EXPLAINING ADVA AND TAADVA.....	83
2.4.1. <i>Key search terms</i>	86
2.4.2. <i>Inclusion criteria</i>	87
2.4.3. <i>Risk/protective factors and correlates of ADVA and TAADVA</i>	87
2.5. DISCUSSION	123
2.6. CONCLUSION	127
CHAPTER 3: METHODOLOGY	128
3.1. INTRODUCTION	128
3.2. DESIGN	128
3.3. PARTICIPANTS.....	130
3.3.1. <i>Comparative analysis of age, gender and ethnicity between sample type</i>	131
3.3.2. <i>Determining sample sizes</i>	132

3.4. MEASURES	133
3.4.1. TAADVA questionnaire development.....	133
3.4.2. Final quantitative measures.....	150
3.5. PROCEDURE.....	156
3.5.1. Ethical Approval.....	156
3.5.2. General procedures.....	157
3.6. ANALYTICAL STRATEGY	158
3.7. CONCLUSION	161
CHAPTER 4: THE NATURE, PREVALENCE, AND OVERLAP OF TECHNOLOGY-ASSISTED AND TRADITIONAL ADOLESCENT DATING VIOLENCE AND ABUSE.....	162
4.1. INTRODUCTION.....	162
4.1.1. Hypotheses.....	164
4.2. METHOD	164
4.2.1. Design.....	164
4.2.2. Participants	165
4.2.3. Measures.....	168
4.2.4. Procedure.....	169
4.2.5. Analytical strategy.....	169
4.3. RESULTS	170
4.3.1. Data screening and correlations with social desirability	170
4.3.2. The nature of TAADVA victimisation and instigation	171
4.3.3. Prevalence of TAADVA and ADVA.....	174
4.3.6. Overlap between victimisation and instigation of TAADVA and ADVA.....	178
4.3.7. Overlap between TAADVA and ADVA.....	181
4.4. DISCUSSION.....	185
4.4.1. Implications.....	190
4.4.2. Limitations	193
4.5. CONCLUSION	193
CHAPTER 5: CORRELATES OF TECHNOLOGY-ASSISTED ADOLESCENT DATING VIOLENCE AND ABUSE.....	194
5.1. INTRODUCTION.....	194
5.1.1. Hypotheses.....	196
5.2. METHOD	197
5.2.1. Design.....	197
5.2.2. Participants	197
5.2.3. Measures.....	197
5.2.4. Analytical strategy.....	197
5.3. RESULTS	198
5.3.1. Data screening and correlations with social desirability	198
5.3.2. Between groups (TAADVA victims only, instigator-victims, and none) comparisons of the 13 predictor variables.....	198
5.3.3. Factors associated with TAADVA involvement.....	204
5.4. DISCUSSION.....	208
5.4.1. Implications.....	209
5.4.2. Limitations	211
5.5. CONCLUSION	211
CHAPTER 6: THE INFLUENCE OF ATTACHMENT TO PARENTS, FRIENDS, AND PARTNERS ON THE RELATIONSHIP BETWEEN FRIEND DATING VIOLENCE AND SELF-REPORTED EXPERIENCES OF TECHNOLOGY-ASSISTED AND OFFLINE ADOLESCENT DATING VIOLENCE AND ABUSE	212
6.1. INTRODUCTION.....	212
6.1.1. Hypotheses.....	216
6.2. METHOD	217
6.2.1. Design.....	217
6.2.2. Participants	217

6.2.3. Measures.....	218
6.2.4. Analytical strategy.....	218
6.3. RESULTS	219
6.3.1. Data screening and correlations with social desirability	219
6.3.2. Initial comparisons and correlations between the criterion and predictor variables	219
6.3.3. Tests of whether parental attachment mediates the relationship between friend dating violence and self-reported TAADVA and ADVA	226
6.4. DISCUSSION	233
6.4.1. Implications of the findings	238
6.4.2. Limitations	239
6.5. CONCLUSION	240
CHAPTER 7: DISCUSSION.....	241
7.1. INTRODUCTION	241
7.2. SUMMARY OF THE THESIS.....	241
7.3. LIMITATIONS	245
7.4. IMPLICATIONS	247
7.4.1. Implications for understanding the role of ECT in ADVA.....	247
7.4.2. Implications for ADVA policy.....	249
7.4.3. Implications for addressing ADVA/TAADVA through social learning.....	249
7.4.4. Implications for addressing attachment security to significant others	250
7.5. FUTURE DIRECTIONS	252
7.6. CONCLUSION	254
REFERENCES	255
APPENDICES	295
APPENDIX 1: PUBLISHED VERSION OF CHAPTER 2	296
APPENDIX 2: ADVA/TAADVA RISK/PROTECTIVE FACTORS/CORRELATES STUDIES	324
APPENDIX 3: PUBLISHED PILOT STUDY PAPER.....	333
APPENDIX 4: PARTICIPANT DEMOGRAPHIC INFORMATION	368
APPENDIX 5: DESCRIPTIVE FREQUENCIES OF THE CONSEQUENCES OF TECHNOLOGY-ASSISTED ADOLESCENT DATING VIOLENCE MEASURE	369
APPENDIX 6: PRE-PILOT QUESTIONNAIRE	382
APPENDIX 7: CHILDREN’S SOCIAL DESIRABILITY SCALE	395
APPENDIX 8: ETHICS FOR PILOT STUDY	396
APPENDIX 9: PILOT STUDY FOCUS GROUP SCHEDULE	397
APPENDIX 10: MAIN STUDY QUESTIONNAIRE.....	399
APPENDIX 11: PHYSICAL DATING VIOLENCE QUESTIONNAIRE.....	417
APPENDIX 12: CONTROLLING DATING VIOLENCE QUESTIONNAIRE	419
APPENDIX 13: ATTACHMENT QUESTIONNAIRE	421
APPENDIX 14: ETHICS FOR MAIN STUDY	424
APPENDIX 15: FACTOR ANALYSIS OF THE FRIEND ADVA/TAADVA MEASURE.....	426
APPENDIX 16: DATING EXPERIENCE QUESTIONS	430
APPENDIX 17: DESCRIPTIVE FREQUENCIES OF TAADVA BEHAVIOURS AND ECTS.....	432
APPENDIX 18: DATA SCREENING CHAPTER 4: DATING EXPERIENCE	458
APPENDIX 19: DATA SCREENING: CHAPTER 4: TAADVA AND ADVA.....	459
APPENDIX 20: FACTOR ANALYSIS PATTERN AND FACTOR CORRELATION MATRIX FOR THE TAADVA QUESTIONNAIRE	460
APPENDIX 21: DATA SCREENING CHAPTER 5: PREDICTORS	464
APPENDIX 22: DATA SCREENING CHAPTER 6: PREDICTORS	465

Introduction

Background

For the purposes of the current research project the term ‘adolescence’ covers the developmental period of 10 to 18 years old (World Health Organisation 2015). It is during adolescence that young people are likely to begin to establish romantic relationships, often dating others within their peer group (Collins 2003 and Connolly et al. 2004). Romantic relationships are important in young people’s social, sexual, and identity development (Connolly and McIsaac 2011, Furman and Shaffer 2003 and Sorensen 2007). However, dating relationships also place young people at risk of dating violence (Hickman, Jaycox, and Aronoff 2004).

Adolescent Dating Violence and Abuse (ADVA), also called intimate partner/relationship violence, has traditionally been defined as consisting of physical, psychological or sexual abuse, harassment, or stalking in the context of a past or present romantic or consensual relationship (National Institute of Justice 2011). Terms such as ‘instigators/instigation’ are preferred to ‘perpetrators/perpetration’ (Barter et al. 2009) and appear to be more suitable when referring to adolescents who inflict or use ADVA¹, rather than using terminology used within legal contexts. The term victimisation will be used to refer to those adolescents who have experienced or received ADVA.

Prevalence rates of ADVA victimisation in the United Kingdom (UK) range from 10-30% for physical ADVA, 20-70% for psychological/emotional ADVA, and 3-30% for sexual dating ADVA (Barter et al. 2009, Burman and Cartmel 2005, Fox et al. 2014, Hird 2000 and Schütt 2006). Furthermore, the emotional, physical, and behavioural impact of ADVA has been recognised as an important issue and public health concern (Ackard, Eisenberg, and Neumark-Sztainer 2007, Barter et al. 2009, Callahan, Folman, and Saunders 2003, Silverman et al. 2001 and Teten et al. 2009). Concern has also been expressed about the continuation of ADVA into young adulthood (Smith, White, and Holland 2003).

The term Electronic Communication Technology (ECT) refers to methods of communication via mobile phones and the Internet (e.g. calls, texts, social networking sites, instant messenger, picture

¹ Although this terminology has been employed in this thesis, it is noted that the terms victimisation and perpetration have been used in the published version of Chapter 1 (Stonard et al. 2014; Appendix 1) due to the publication of this earlier version of the chapter prior to this reconsideration of the appropriate terminology.

messages, video chat, email, chat rooms and websites/blogs). The development of accessible and inexpensive methods of ECT has changed the way adolescents communicate with each other, including the development, maintenance and dissolution of romantic relationships and those that include dating violence (Bryant, Sanders-Jackson, and Smallwood 2006, Draucker and Martsof 2010, Mishna, McLuckie, and Saini 2009 and Picard 2007). Recent definitions of ADVA have acknowledged that abuse can occur in person or electronically, such as repeated texting or posting sexual pictures of a partner online (Centers for Disease Control and Prevention (CDC) 2012). Although ECT appears to provide an extension of ADVA, the nature of ECT may bring additional difficulties for victims of Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA) as a result of the ability to contact and abuse another instantly, at any time, repeatedly, and the ability to potentially instigate harsher behaviour that can publically humiliate partners (Draucker and Martsof 2010, Girlguiding 2013 and Rueda, Lindsay, and Williams 2015). Adolescents also report ECT to enhance obsessive and jealous feelings and stalking-like behaviour (Baker and Carreño 2016, Girlguiding 2013, Lucero et al. 2014 and Stonard et al. 2015). Therefore, TAADVA may need to be considered as a unique form of abusive behaviour and not just ADVA itself, despite the overlap between the methods of abuse, with possible unique characteristics, motives, predictors and impact. Limited research has explored how ECT may be used to instigate ADVA, particularly in the UK.

Previous research on TAADVA has reported prevalence rates of victimisation up to 56% (Cutbush et al. 2010). However, studies that have explored TAADVA vary in the comprehensiveness of the measures used. Cutbush et al. (2010), Cutbush et al. (2012) and Zweig et al. (2013b) use items from Picard's (2007) original investigation, however various ad hoc measures have been employed that differ in the range of behaviours measured and depth in which TAADVA is explored. For example, TAADVA is the primary focus of the investigation in the studies cited above, while for others, only one or two questions about TAADVA are asked (Fox et al. 2014). Only two studies identified the specific ECT method through which TAADVA was experienced and/or instigated (Draucker and Martsof 2010 and Korchmaros et al. 2013). In addition, only three studies have explored TAADVA or included questions about TAADVA in the UK or Europe (Barter et al. 2009, Barter et al. 2015a and Fox et al. 2014). Questions also remain as to adolescents' role of involvement in TAADVA as a victim and/or instigator across the sexes. Furthermore, it is also not known whether TAADVA creates new

victims and instigators of ADVA through ECT, or whether TAADVA occurs only within the context of traditional ADVA as a continuum of abuse and control in both the offline and online contexts.

A final limitation of the TAADVA literature is that there is a lack of research regarding the potential correlates of TAADVA involvement as a victim and/or instigator, particularly peer influences (e.g. friend ADVA/TAADVA) and attachment-related factors, despite research identifying such areas as potential correlates of ADVA (Arriga and Foshee 2004, Foshee, Reyes, and Ennett 2010 and Ulloa, Martinez-Arango, and Hokoda 2014). Additionally, research has yet to explore the influence of socio-cognitive factors such as anxious and avoidant attachment to parents, friends, and partners on the relationship between situational socio-cultural factors thought to be important in ADVA/TAADVA (e.g. friend ADVA/TAADVA) and self-reported TAADVA and ADVA, and whether friend, partner or parent influences are more influential in predicting TAADVA/ADVA. Moreover, it is not known whether TAADVA has its own unique risk factors or correlates compared to traditional ADVA. In summary, although the current literature base has provided insight into TAADVA and possible predictors, there are a number of limitations, some of which are addressed in this thesis.

Rationale and Aims

The current study aims to address a number of the limitations presented above. In particular, this research addresses three principal questions (with several respective sub-questions), namely:

1. What is the nature and prevalence of TAADVA?

- a. What is the nature of ECT used in TAADVA?
- b. What is the prevalence of TAADVA and ADVA?
- c. What role of involvement in TAADVA and ADVA (i.e. none, victim, instigator, instigator-victim) do adolescents have?
- d. What is the extent of the overlap between TAADVA and ADVA?

2. Are risk factors identified as important in ADVA also correlates of TAADVA?

- a. What factors (i.e. friend TAADVA, attachment, past ADVA, relationship characteristics, and age) are associated with TAADVA involvement?
- b. Which of these factors are independent predictors of TAADVA involvement?

3. Does attachment to parents, friends, and partners influence the relationship between friend dating violence experiences and self-reported TAADVA and ADVA?

- a. Do adolescents involved in TAADVA and ADVA report having more friends with experience of dating violence?
- b. Do adolescents involved in TAADVA and ADVA report higher attachment insecurity with parents, friends, and partners?
- c. Is friend dating violence experience related to attachment to parents, friends, and partners?
- d. How do adolescent attachments to parents, friends, and partners relate to each other?
- e. How do adolescents' attachments to parents, friends, and partners influence the relationship between friend dating violence and self-reported TAADVA and ADVA?

Structure of the Thesis

In Chapter 1, a comprehensive review of the nature, prevalence and impact of ADVA and TAADVA is presented. Chapter 1 is an updated and modified version of a published paper (Stonard et al. 2014; Appendix 1). In Chapter 2, a theoretical overview of the ADVA literature is provided. This encompasses a critical analysis of the ADVA and TAADVA risk factor literature in relation to relevant theory. Chapter 3 details the methodology and rationale for the research design, including the development, pilot and refinement of a new comprehensive TAADVA questionnaire. Chapter 4 reports the findings from the survey regarding the nature and prevalence of TAADVA and ADVA (Research Question 1). Chapter 5 presents the findings from the analysis of the potential correlates of TAADVA (Research Question 2). Chapter 6 reports the findings from the investigation into the influence of attachment on the relationship between friend dating violence and self-reported TAADVA and ADVA (Research Question 3). Finally, Chapter 7 consists of a general discussion of the findings including consideration for the strengths, limitations, and implications of the research for policy, practice and future research.

Chapter 1: The Role of Electronic Communication Technology in the Nature, Prevalence and Impact of Adolescent Dating Violence and Abuse: A Research Synthesis

1.1. Introduction

The purpose of this chapter is to review and synthesise the literature on the prevalence and impact of Adolescent Dating Violence and Abuse (ADVA) and Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA). The chapter starts by considering the nature of adolescent romantic relationships and the role of Electronic Communication Technology (ECT) in this context. Existing definitions of ADVA and TAADVA are then reviewed in relation to the behaviours used and how they are measured. Following an overview of the methodology used for this review, the subsequent sections of this chapter provide the results of a systematic review of the ADVA literature that reports on the prevalence of physical, psychological/emotional, and sexual ADVA, followed by studies that have investigated the prevalence of TAADVA. In particular, consideration will be given to the method of ECT used in TAADVA and the relationship between TAADVA and ADVA. Finally, the question of whether the psychological impact of TAADVA is comparable to that of traditional forms of ADVA will be examined.

1.2. Adolescence and Adolescent Romantic Relationships

The term 'adolescence' has been defined as comprising three developmental periods: early adolescence (typically ages 10–13), middle adolescence (ages 14–17), and late adolescence (age 18 until the early twenties; Smetana, Campione-Barr, and Metzger 2006). During this developmental period of maturation, romantic relationships become increasingly central to the social life of most adolescents as they seek to form a sense of their self-identity and sexuality (Connolly and McIsaac 2011, Furman and Shaffer 2003 and Sorensen 2007). Researchers suggest that most adolescents begin initiating romantic relationships during early adolescence, and that they gradually progress from a few short, casual, and potentially frequent relationships, to more long-term ones, or to a single steady relationship that becomes more dyadic as partners become more emotionally and sexually involved

(Collins 2003, Connolly et al. 2004, Davies and Windle 2000, Meier and Allen 2009 and Shulman and Scharf 2000).

In the United Kingdom (UK), between 83-88% of adolescents (age 12-17 years) report that they have had at least one romantic relationship experience with a boyfriend/girlfriend (Barter et al. 2009, Fox et al. 2014 and Schütt 2006). Researchers in the United States (US) have found that approximately 50% of adolescents aged 11-12 report having a boyfriend/girlfriend in the past three months (Miller et al. 2009 and Simon et al. 2010). This percentage increases with age, with 72% of adolescents (age 13-16 years) reporting that they are dating or have experience with dating (Eaton et al. 2010). A significant number of adolescents therefore have experience of romantic relationships, which appear to become more prevalent and serious as young people mature. Adolescents have been found to engage in a range of dating activities (mixed- and same-gendered), both non-sexual and sexual, which may take place in and outside of school (Carlson and Rose 2012, Connolly et al. 2004, Fredland et al. 2005, Manning, Giordano, and Longmore 2006 and Waylen et al. 2010). These studies have highlighted the importance of dating activities to adolescents both within group and personal settings, including the exploration of sexually intimate behaviours from the early stages of adolescence.

Adolescent romantic relationships are thought to be an integral part of the social scaffolding on which young-adult romantic relationships rest (Meier and Allen 2009). Romantic partners can also be a major source of emotional support, as well as providing opportunities for adolescents to develop interpersonal skills in order to form and maintain longer-term intimate relationships (Sorensen 2007). Maintaining steady relationships over time, as opposed to following pathways into multiple casual relationships, has also been associated with positive emotional adjustment and reduced depressive symptoms and problem behaviours (Davies and Windle 2000). While romantic relationships have the potential to benefit adolescent development, they can also place young people at risk for problems such as sexually transmitted infections, pregnancy (Furman 2002), and relationships that include dating violence (Hickman, Jaycox, and Aronoff 2004).

1.2.1. The role of ECT in adolescent romantic relationships

Advancements in ECTs have enabled fast-paced, inexpensive, mobile and online communication, which is rapidly changing and redefining the social networks of young people (Bryant, Sanders-Jackson, and Smallwood 2006). Research has identified that ECT is used at least daily or

weekly by the majority of adolescents (CHILDWISE 2013, Livingstone and Bober 2005 and Ofcom 2011). Furthermore, online communication presents several opportunities for adolescents' social development, i.e. enhanced self-esteem, relationship formation, friendship quality, and sexual self-exploration (Valkenburg and Peter 2011). Subrahmanyam and Greenfield (2008) found that adolescents participated in online communication activities to reinforce existing relationships, both with friends and romantic partners, integrating these online tools into their 'offline' worlds. In an analysis of anonymous posts (346 posts extracted from 35,000) made by young people aged 11-24 years old to a free 24-hour national phone and web counselling, referral and information service, adolescents were found to readily develop both friendships and romantic relationships online (with some being established and maintained exclusively online), that were highly valued and considered as important as relationships in 'real' life (Mishna, McLuckie, and Saini 2009). Draucker and Martsof (2010) also found that adolescents used communication tools to establish, maintain, and end romantic relationships, and to reconnect after a breakup.

Adolescents commonly use ECT to keep in contact with their romantic partners for day-to-day non-abusive communication (Barter et al. 2009, Carlson and Rose 2012, Draucker and Martsof 2010, Picard 2007 and Toscano 2007). Carlson and Rose (2012) found that 88% of 10-17 year old adolescents in a romantic relationship reported communicating with their partner via mobile phone. The use of emails and instant messenger was also reported by 51% of adolescents as a way of communicating in a romantic relationship. Adolescents (aged 13-18) report communicating with their dating partners late or throughout the night (Picard 2007), highlighting the relevance and extensiveness of ECT use by adolescents within their dating relationships, potentially on a 24/7 basis. Mishna, McLuckie, and Saini (2009) found that teenagers as young as 13 years old depicted being involved in intense online romantic and sexual relationships, describing encounters that ranged from explicit sexual dialogue (referred to as 'cybering') and displaying nudity via webcams (referred to as 'flashing'), to long-term monogamous relationships that either progressed to actual meetings or remained within a cyber-context. According to the young people in this study, these online relationships were sustained through 'almost daily' contact through email, webcam, and in some cases via a phone.

A relatively new phenomenon involving ECT among adolescents is the practice of 'sexting'. Lenhart (2009: 3) has defined 'sexting' as 'the creating, sharing and forwarding of sexually suggestive nude or nearly nude images or messages by teens'. In a review of quantitative research on sexting,

Ringrose et al. (2012) reported that between 15-40% of young people are involved in sexting, depending on their age and the way sexting is measured. The authors also found that few teens wished to be excluded from sexual banter, gossip, discussion and flirtatious activity within their peer networks. Furthermore, sexting was not just practiced on a one-to-one basis but as a group, networked phenomenon. It has been suggested that adolescence is a time of sexual exploration not only in real-life situations, but also in the virtual reality of online sex through methods such as the Internet, chatrooms and webcams (de Bruijn, Burrie, and van Wel 2006). In the Associated Press and MTV's (2011) study on digital abuse, one in three 14-24 year olds reported having engaged in some form of sexting, while 71% regarded sexting as a serious problem for people their age. Although sexting may be used on a voluntary or mutual basis, sexting can place adolescents at risk of behaviours that are linked to harassment, bullying and violence (Ringrose et al. 2012). For example, being asked or pressured to engage in sexual acts, pressured to send sexting messages or images, and receiving unwanted sexual messages or images via ECT (Associated Press and MTV 2011, Cutbush et al. 2010, Picard 2007, Thompson, Benz, and Agiesta 2013, and Zweig et al. 2013b).

A recent study by Wood et al. (2015) highlighted a link between adolescent sexting practices and ADVA, and within this study, some gender differences were observed. For example, the authors found that 38% of adolescents in England had sent sexting messages to a partner during or after the relationship had ended and that this was significantly higher for females (44% vs. 32%). Gender differences were not significant for receiving sexting messages (49% vs. 47%). Importantly, the authors found that while sexting experiences were often positive and mutually consensual, they were also often related to both offline and online dating violence and negative experiences. For example, females reported several negative experiences, who compared to males were more likely to have: sent sexts as a result of pressure from their partner (27% vs. 7%); to report a negative impact as a result of sending a sext to a partner (30% vs. 8%); and to report that a sexting image had been shared by a partner (42% vs. 13%; Wood et al. 2015). Males were more likely than females to report a positive impact of sending a sext (91% vs. 41%). Sexting in romantic relationships therefore appears to have a different meaning and impact for males and females, in addition to providing a new tool for adolescents to sexually pressure, coerce, and publically humiliate a partner, which appears to be experienced within a wider context of ADVA.

Further evidence of the gendered nature of sexting was identified in Ringrose et al.'s (2012) study about adolescent female's experiences of ECT in relationships and sexting. A key finding was that males used threats and the sharing of images not only to expose, humiliate or spread rumours about a female partner, but also with the intent to get 'ratings' from peers. These 'ratings' are reported to be reinforced by normalised sexism at the peer and cultural level, which contributes to the sexual double standards that are represented by the harassment of girls and requests for sexual acts and/or images and the subsequent judgement of them as 'sluts' for engaging in such behaviour (Ringrose et al. 2012 and Ringrose et al. 2013). While girls are judged for engaging in sexting behaviour, males appear to be praised or even encouraged to ask for, and share, sexting messages, resulting in different experiences and consequences for males and females. Such norms appear to legitimise the sharing of sexting images, which may be used as a form of bullying or dating violence. Sexting appears to therefore not only place adolescents at risk for harassment, bullying and dating violence, but the experience and impact of sexting are not gender-neutral, and are possibly influenced by socio-cultural factors that provide adolescents with gender-biased prescriptions of expected sexual and relationship behaviours.

Overall, ECT brings a range of benefits to adolescents in terms of the establishment and maintenance of romantic relationships and identity and sexual development and exploration. However, growing evidence suggests that the availability and use of ECT also places young people at risk for several harmful behaviours such as cyberbullying, harassment, stalking and TAADVA (Centers for Disease Control and Prevention (CDC) 2012, David-Ferdon and Hertz 2007, Mitchell, Wolak, and Finkelhor 2007, Picard, 2007; Sharples et al. 2009 and Wolak, Mitchell, and Finkelhor 2006).

1.3. The Defining ADVA and TAADVA

Violence in adolescent dating relationships has been studied since the 1980s (Makepeace 1981, Henton 1983, Roscoe and Callahan 1985 and O'Keeffe 1986). However, there has been a lag between the development of empirical research on ADVA and its resulting acknowledgement in official definitions and policy (Home Office 2012a and Home Office 2014). The nature of ADVA and how this has been characterised and measured has changed over time and there is a lack of consensus regarding some of the defining features of ADVA in the 10 definitions of dating violence that exist in the literature (see Table 1.1).

Table 1.1

Definitions of Dating Violence

Source	Definitions of Dating Violence
Puig (1984) ^a	Acts of physical aggression directed at one dating partner by another dating partner (p.268 ^a ; p.5)
Thompson (1986) ^a	Any acts and/or threat of acts that physically and/or verbally abuse another person, and that occur during any social interaction related to the dating and/or mate selection process (p.165-166 ^a ; p.5)
Carlson (1987) ^a	Violence in unmarried couples who are romantically involved (p.17 ^a ; p.5)
Sugarman and Hotaling (1989)	A dyadic interaction that involves the perpetration or threat of an act of psychological, physical or sexual violence by at least one member of an unmarried dyad on the other within the context of the dating process (p.5). The use or threat of physical force or restraint carried out with the intent of causing pain or injury to another within a dating relationship (p.4)
Wekerle and Wolfe (1999)	Any behaviour that is intended to control or dominate another person physically, sexually, or psychologically, causing some level of harm (p.436)
Lavoie, Robitaille, and Hébert (2000)	Any behaviour that is prejudicial to the partner's development or health by compromising his or her physical, psychological, or sexual integrity (p.8)
Saltzman et al. (2002)	<p><i>Physical Violence:</i> The intentional use of physical force with the potential for causing death, disability, injury, or harm. Physical violence includes, but is not limited to: scratching, pushing, shoving, throwing, grabbing, biting, choking, shaking, poking, hair-pulling, slapping, punching, hitting, burning, use of a weapon (gun, knife, or other object), and use of restraints or one's body, size, or strength against another person. Physical violence also includes coercing other people to commit any of the above acts</p> <p><i>Sexual Violence:</i> (1) The use of physical force to compel a person to engage in a sexual act against his or her will, whether or not the act is completed; (2) An attempted or completed sex act involving a person who is unable to understand the nature or condition of the act, to decline participation, or to communicate unwillingness to engage in the sexual act (e.g. because of illness, disability, or the influence of alcohol or other drugs, or due to intimidation or pressure); (3) Abusive sexual contact</p> <p><i>Psychological/Emotional Abuse:</i> Involves trauma caused by acts, threats of acts, or coercive tactics. For example, humiliating, controlling or isolating the victim, or deliberately doing something to make the victim feel diminished or embarrassed. Other behaviours may be considered emotionally abusive if they are perceived as such by the victim.</p> <p><i>Threat of Physical or Sexual Violence:</i> The use of words, gestures, or weapons to: (1) communicate the intent to cause death, disability, injury, or physical harm or (2) communicate the intent to compel a person to engage in sex acts or abusive sexual contact when the person is either unwilling or unable to consent (p.11-13)</p>
Schütt (2006)	Controlling, abusive, threatening and/or aggressive behaviour towards a partner or previous partner. But unlike in the cases of domestic violence among adults, adolescent domestic violence can occur between non-cohabiting partners (p.16)
National Institute of Justice (2011)	Teen dating violence — also called intimate relationship violence or intimate partner violence among adolescents or adolescent relationship abuse — includes physical, psychological or sexual abuse, harassment, or stalking of any person aged 12 to 18 in the context of a past or present romantic or consensual relationship (p.1)
Centers for Disease Control and Prevention (2012)	Teen dating violence is defined as the physical, sexual, or psychological/emotional violence between two people within a close or dating relationship, as well as stalking. It can occur in person or electronically such as repeated texting or posting sexual pictures of a partner online and may occur between a current or former dating partner (p.1)

Note: ^aCited in Sugarman and Hotaling (1989)

All but one of these definitions have yet to specifically identify an age from which such behaviours can be identified as ADVA (National Institute of Justice 2011), which has led to some lack of clarity regarding the populations to which they apply. Only three of these definitions (CDC 2012, National Institute of Justice 2011 and Schütt 2006) refer to ‘adolescents’ or ‘teens’ specifically, while the others refer to the criteria that this behaviour occurs between romantic couples who are unmarried or non-cohabiting. Sugarman and Hotaling’s (1989) definition incorporates a range of romantic relationship experiences from first dates to cohabitation and engagement, but the absence of a specification of age means that this could be applied to adolescents and adults. As definitions have evolved over time, they have incorporated a wider range of behaviours, starting with physical violence and progressing to include psychological abuse and threats, sexual violence, and controlling behaviours (1980-1990s), with the most recent definition acknowledging the role of ECT in ADVA as well as stalking (CDC 2012; Table 1.1).

A practice-based definition of domestic violence for adult populations that conceptualises all forms of abuse including physical and controlling behaviours has been developed by Pence and Paymar (1993). Pence and Paymar (1993) created a ‘Power and Control Wheel’ with the Domestic Abuse Intervention Project (DAIP), that was based on group interviews with women attending educational classes offered by the Duluth Battered Women’s Shelter. The authors define the use of gender-specific power and control in intimate relationships as including the use of intimidation, emotional abuse, isolation, minimising, denying and blaming, using children, using male privilege, economic abuse, and coercion and threats. Based on this, the National Center on Domestic and Sexual Violence (NCDSV; n.d.) developed a ‘Teen Power and Control Wheel’ that was more gender neutral and identifies control in adolescent dating relationships as consisting of: anger/emotional abuse, using social status, intimidation, minimising, denying and blaming, threats, sexual coercion, isolation/exclusion, and peer pressure. At the moment, there is no clear understanding of how the teen version of the power and control wheel was developed. It is also recognised that ADVA is not always gender-neutral, particularly in terms of prevalence and impact of male instigation and female victimisation of sexual violence (Foshee 1996 and Barter et al. 2009).

Technology-assisted ADVA has similarly been conceptualised by the Domestic Violence Prevention Centre (DVPC; n.d.) as consisting of: coercion, threats, harassment, intimidation, emotional and verbal abuse, stealing online identity, controlling behaviours, sexual abuse, and cyber-stalking.

These TAADVA behaviours reflect those identified in traditional ADVA, however ECT appears to provide a new tool through which adolescents can experience and instigate abusive and controlling behaviours. Therefore, ADVA is recognised as encompassing a diverse range of behaviours including physical, psychological/emotional and sexual violence, violence that can be experienced in person and electronically.

With the changing nature of the definitions of these behaviours comes a change in how they are measured. Physical ADVA behaviours have most often been measured by the act-based Conflict Tactics Scale (CTS; Straus 1979) and revised versions (Straus et al. 1996 and Straus and Douglas 2004). The Youth Risk Behaviour Survey (YRBS) is a broader measure of adolescent health risk behaviours developed in 1990 that has been used to measure physical and sexual ADVA (CDC 2015 and Kann et al. 2013). The later recognition of psychological abuse (including verbal abuse and threats) led to the inclusion of these behaviours in measures such as the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe et al. 2001). Quantitative measures have been criticised for failing to adequately acknowledge the causes, meaning and impact of ADVA and failing to make them contextually relevant or consider gender differences in response styles (DeKeseredy and Schwartz, 2011, Dobash et al. 1992, Kimmel 1990, Mulford and Blachman-Demner 2013 and Straus et al. 1996).

The first study to investigate TAADVA was by Picard (2007) and questions remain unanswered regarding the effective measurement of these behaviours as no thorough evaluations of these measures have been conducted. Since then, studies have varied in the number of items used to investigate TAADVA. For example, three studies (Cutbush et al. 2010, Cutbush et al. 2012 and Zweig et al. 2013b) have used up to eight items from Picard's (2007) original investigation, while others have used ad hoc measures developed specifically for their research that can consist of one question to a set of questions (Associated Press 2009, 2011, Barter et al. 2009, Fox et al. 2014 and Hinduja and Patchin 2011). For example, Fox et al. (2014) only asks one question: 'have you/your partner ever checked up on who you have phoned or sent messages to at least once?'. Two studies investigated the specific methods of ECT through which TAADVA is experienced and/or instigated (Draucker and Martsolf 2010 and Korchmaros et al. 2013) but do not appear to use measures that enable them to do this thoroughly. Others investigate TAADVA behaviours generally without specifying the ECT method used. Details of the measures and particular items used to investigate TAADVA are provided in Section 1.6 when examining prevalence of TAADVA. What is currently unknown is whether ECT

creates new victims and/or instigators of TAADVA or whether TAADVA occurs within the context of traditional ADVA as an extension of abuse and control in both the offline and online realms. It is also not known whether TAADVA has its own unique risk factors, motives and impact associated with its use compared to that of traditional ADVA.

Importantly, based on this review it can be seen that ADVA and TAADVA has only recently been acknowledged in research and has not been given sufficient attention in definitions, measures, and policy, particularly in the UK. It was not until September 2012 that the UK Government agreed to amend the existing definition of adult domestic violence to ‘domestic violence and abuse’, which now includes young people aged 16–17 years old as well as adults aged 18 and over. This does not appear to reflect the findings regarding the prevalence of ADVA and/or TAADVA among adolescents as young as 13 years old in the UK (Barter et al. 2009, Fox et al. 2014, and Hird 2000). As identified by Bowen and Walker (2015), this lower age restriction in the cross-Government definition of domestic abuse is surprising when considering that internationally, the Istanbul Convention on Preventing and Combating Violence Against Women and Domestic Violence applies to all those under the age of 18 years old as well as adults (Council of Europe 2011). The amended cross-Government definition also now includes coercive and controlling behaviours as well as threatening behaviours and physical, psychological, emotional, financial and sexual violence (Home Office 2012). However, there is no explicit inclusion of ECT as a method through which these behaviours occur as has been recognised in the CDC’s (2012) definition of ADVA. As TAADVA is still yet to be formally addressed in definitions and measures, further work needs to be done to research the nature, prevalence and impact of such behaviour in order to understand the complex and diverse nature of ADVA//TAADVA and for this to be accurately recognised in definitions and at the government policy level.

1.4. Methodology for Review

Bibliographic databases (e.g. Academic Search Complete, PsychINFO, and Science Direct) and Google Scholar were searched for peer-reviewed journals with the inclusion criteria that these were published in English. Key search terms such as ‘adolescent(ce)’, ‘teen(age)’ and ‘youth’ were used interchangeably with the search terms used to identify the target population of the focus in the review. Terms such as ‘dating’, ‘intimate’, ‘relationship’, ‘romantic’, and ‘partner’ were used in conjunction with ‘activities’, ‘abuse’, ‘aggression’, ‘behaviour’, ‘bullying’, ‘harassment’, ‘stalking’, and ‘violence’,

in addition to 'prevalence' and 'impact' in a combination of ways in order to gather data on the nature, prevalence and impact of ADVA. An example of this search technique is provided as follows:

'adolescent' OR 'teenage' AND 'dating' AND 'violence' AND 'prevalence'. When broadening the search to capture the relevance of ECT within this context, terms such as 'communication', 'cyber', 'digital', 'electronic', 'media', 'net(work)', 'online', and 'technology' were included interchangeably. Spelling variations were adapted when searching international journals and databases by using American and English variants of terms such as 'behavior' and 'behaviour'. Following exhaustive searches, reference lists were also scanned from gathered literature to maximise the collection of as many relevant available studies as possible. A number of reports, posters and a factsheet were also obtained which were found to report on the prevalence of TAADVA. A total of 64 studies were found to investigate traditional forms of ADVA and 16 for TAADVA accounting for a total of 74 different studies.

The literature found was categorised as being conducted in the US, Canada, the UK, Europe, and New Zealand. There were two European studies that were included in the review when reporting prevalence rates for ADVA that could either not be accessed (Krahé 2009), or were not published in English (Narring et al. 2004), but which had their prevalence statistics reported in a previous North American and European review of ADVA (Leen et al. 2013). These studies are only referred to in the summary tables reporting percentages of the prevalence of ADVA. It was deemed essential to include these studies due to the disparity between the number of studies available from the US compared to those from Europe. A date restriction was applied when searching for literature reporting the prevalence of ADVA that limited the search to studies published since the year 2000 in order to make the reviewable material more manageable. This also meant that the most modern and up-to-date literature was included in the review. This was a tactful decision that ensured that any pivotal research was not excluded, i.e. the earliest UK study found was therefore included (Hird 2000). Prior to 2007, no studies reported on TAADVA behaviours. Criteria for inclusion also required the study samples to be of adolescent age, which has been identified as ranging from age 10-18 years old (WHO 2015). There were exceptions, for example, some studies with adolescent samples also included young people and young adults up to the age of 24 years (Associated Press and MTV 2009, 2011, Danielsson et al. 2009 and Tompson, Benz, and Agiesta 2013), and age 29 (Krahé and Berger 2005). It was decided to retain these studies as they still included adolescents under the age of 18 years old and because there

was such a limited number of European studies and those that explored TAADVA specifically. Methodological features relevant to the studies reviewed are noted within the summary tables (Table 1.2-1.12).

1.5. Prevalence of ADVA

A total of 64 studies met the requirements for inclusion reporting prevalence rates for physical and/or psychological/emotional and/or sexual ADVA. Accounting for the majority of the literature, 41 studies were conducted in the US. In addition, eight studies originated from Canada, nine in Continental Europe, six in the UK and one in New Zealand (one study included a UK and EU sample). For some studies the prevalence of ADVA was the sole focus of inquiry while for others, reporting prevalence was part of a broader investigation. Prevalence rates were generally calculated by victimisation and/or instigation and/or by gender for each type of violence. Not all studies report all types of aggression and so these studies have been identified accordingly. The number of studies reporting physical ADVA ($n = 59$) far outnumbered those reporting psychological/emotional ADVA ($n = 26$) and sexual ADVA ($n = 25$). The prevalence for physical, psychological/emotional, and sexual ADVA is presented in individual tables, which will be discussed in turn. These tables are organised to summarise studies based on the type of instrument used to measure the types of ADVA (Table 1.2-1.12). These instruments have been categorised as follows: CTS (Straus 1979, Straus et al. 1996 and Straus and Douglas 2004); YRBS (CDC 2015); ad hoc measures developed for the particular study; and other established (i.e. validated) instruments such as Foshee et al.'s (1996) Victimisation and Perpetration in Dating Relationships Scales (VDRS/PDRS) or Wolfe et al.'s (2001) CADRI.

1.5.1. Physical ADVA

A total of 59 studies were found to report on the prevalence of physical ADVA (Table 1.2-1.5). Out of the 59 studies where the prevalence of physical ADVA was reported, 18 of these included measures of violence using variants of the CTS (Table 1.2), 11 used the YRBS (Table 1.3), 17 employed ad hoc measures (Table 1.4), and 13 used other established instruments (Table 1.5).

Table 1.2

Prevalence of physical dating violence: Conflict Tactics Scale

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Mutual (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Black et al. (2008)	US <i>n</i> =526 14-18 years old	Cross-sectional	R-CTS	29.0						
Collin-Vézina et al. (2006)	Canada <i>n</i> =220 ^{bc} 12-18 years old	Cross-sectional	R-CTS Lifetime				46.0- 59.6 ^a			
Cyr et al. (2006)	Canada <i>n</i> =126 ^{bd} 13-17 years old	Cross-sectional	R-CTS Lifespan				45.2			
Giordano et al. (2010)	US <i>n</i> =956 12-17 years old	Cross-sectional	R-CTS Previous 12 months			49.0			19.0	15.0
Halpern et al. (2001)	US <i>n</i> =6,897 14-17 years old	Cross-sectional Longitudinal study	CTS Lifespan	12.0			12.0	12.0		
Halpern et al. (2004)	US <i>n</i> =117 ^f 12-21 years old	Cross-sectional	CTS Previous 18 months	11.3			13.1	8.8		
Haynie et al. (2013)	US <i>n</i> =2,203 Mean age 16 years	Cross-sectional	R-CTS Previous 12 months	10.7	9.1		9.8	11.7	11.4	6.3
Hird (2000)	UK <i>n</i> =487 13-19 years old	Cross-sectional	CTS Previous 12 months				14.0	15.0		
Josephson and Proulx (2008)	Canada <i>n</i> =138 12-15 years old	Cross-sectional	R-CTS Lifespan		34.0					
Krahé and Berger (2005)	Germany <i>n</i> =648 17-29 years old	Cross-sectional	R-CTS Lifespan	2.0- 44.4 ^a			2.0- 44.4 ^a	5.3- 43.5 ^a		
Lavoie et al. (2002)	Canada <i>n</i> =717 ^{gh} 10-18 years old	Longitudinal	CTS Previous 12 months							2.9
Muñoz-Rivas et al. (2007)	Spain	Cross-sectional	M-CTS				37.4	31.3	41.9	31.7

O'Leary et al. (2008)	n=2,416 16-20 years old US	Cross-sectional	Lifespan M-CTS	66.0	30.0	31.0	40.0	24.0
Richards et al. (2014)	n=2,363 14-20 years old US	Cross-sectional	R-CTS	61.0	16.0		22.0	
Sears et al. (2007)	n=1,316 ^b 7-11 th grade Canada	Cross-sectional	Current or most recent partner M-CTS				28.0	15.0
Spriggs et al. (2009)	n=633 12-18 years old US	Cross-sectional	Lifespan R-CTS			8.1	7.1	
Tschann et al. (2009)	n=10,650 12-18 years old US	Longitudinal	Previous 18 months R-CTS	27.0	25.0	22.0	33.0	27.0
Williams et al. (2008)	n=150 16-20 years old Canada	Longitudinal Survey	Most recent partner Previous 6 months CTS	32.0		66.0- 79.0 ^e		
	n=621 14-18 years old		Current or most recent relationship					
			Mean	20.7	22.7	62.1	23.6	19.4
			Range	10.7- 32.0	9.1-34.0	49.0- 72.5	8.1-52.8	7.1-33.0
			General population mean				18.6	27.0
			General population range				8.1-37.4	17.0

Note: R- and M =Revised and Modified CTS; ^aDependent on the specific types of the violence; ^bAll female sample; ^cAll participants were in care of Child Protective Services; ^dAll participants had previously experienced sexual abuse; ^eTwo intervals of data reported; ^fSame-sex relationships; ^gMale sample; ^hDating violence involvement at 16-17 years old

1.5.1.1. Victimisation

With regards to the studies reporting the prevalence of physical ADVA victimisation among general population samples, those using the CTS, ad hoc measures, or other established instruments reported fairly consistent prevalence rates ranging from 20-25% (Table 1.2, 1.4 and 1.5). The mean score from studies that used the YRBS was half this (10%; Table 1.3). For female victimisation, studies using the CTS, ad hoc measures, or other established instruments report prevalence rates ranging from 19-28%, while the YRBS reports a lower percentage at 10% (Table 1.2-1.5). For male victimisation a fairly similar pattern emerges. Those studies using the CTS or ad hoc measures report prevalence rates ranging from 19-26% (Table 1.2 and 1.4). Studies where the YRBS was the measure of choice, report a much lower percentage at 10% (Table 1.3). The studies in the other established instrument category report a much higher rate for male victimisation of up to 42% (Table 1.5). The YRBS, like other measures, asks respondents about typical physical violence behaviours such as being hit, slapped, or physically hurt by their dating partner. However, physical violence victimisation is only measured by one question with a timeframe of 12 months and this may account for the lower percentage reported. The high percentage identified for male victimisation in the other established instruments category is accounted for by Danielsson et al.'s (2009) particularly high prevalence rate, as when excluding this study, the mean percentages for victimisation are roughly equal for both sexes (Table 1.5). Danielsson et al.'s (2009) study did not just measure violence experienced by a dating partner but also included violence by parents, partners, ex-partners, friends/acquaintances, and strangers. In this study, the young men were more often exposed to physical (and emotional) violence by a stranger, while young women were more often exposed to physical (and mild emotional) violence by someone close to them such as a parent, partner or ex-partner. The value of the data from this study, particularly regarding male adolescent victims of ADVA, therefore, needs to be considered with caution.

Those studies employing the CTS (Table 1.2) or the YRBS (Table 1.3) report a fairly equal percentage of victimisation for males and females. Ad hoc measures (Table 1.4) and other established instruments (Table 1.5) report a higher statistic for males compared to females. Two studies within the ad hoc measure category (Table 1.4) reported notably higher rates for male victimisation up to double that of those reported for females (Burman and Cartmel 2005 and Simon et al. 2010). These studies measured physical ADVA victimisation with 6-7 items respectively, encompassing behaviours such as

hitting, holding or restraining. Burman and Cartmel (2005) measured this behaviour over the participants' lifetime experience, while Simon et al. (2010) measured this in the past three months.

It is worth noting here that two studies within the CTS measure category (Table 1.2) were conducted with participants with previous experience of being in the care of Child Protection Services (CPS; Collin-Vézina et al. 2006), or with previous experience of sexual abuse (Cyr, McDuff, and Wright 2006). Likewise, one study from the other established instruments category (Table 1.5) was conducted with samples with previous experience CPS care (Wekerle et al. 2009). Those with such previous experiences (i.e. non-general population samples) were twice as likely to experience physical ADVA as those without any experience of these factors (i.e. general population samples). This difference between sample types was not as significant for males when comparing Wekerle et al.'s (2009) non-general population sample with those examining general population samples (Females 34% vs. 28%; Males: 44% vs. 42%). This high percentage for male victimisation as already noted, is likely to have been influenced by the particularly high score reported by Danielsson et al. (2009) at 59% for this category of victimisation.

1.5.1.2. Instigation

In terms of instigation, the mean percentage scores from surveys using the CTS, ad hoc measures and other established instruments reported fairly consistent prevalence rates ranging from 21-23% (Table 1.2, 1.4 and 1.5). The average score from studies using the YRBS was almost a third of this with a mean of 8% (Table 1.3). For female instigation, the same three types of measures reported fairly consistent prevalence rates ranging from 25-27%, as for males 14-17% (Table 1.2, 1.4 and 1.5). The YRBS was found to have a much lower mean at 5% for females and 4% for males (Table 1.3).

Table 1.3

Prevalence of physical dating violence: Youth Risk Behavior Survey

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Banyard and Cross (2008)	US n=2,101 12–17 years old	Cross-sectional	YRBS Lifespan	16.9		16.8	17.1		
Coker et al. (2000)	US n=5,414 14–17 years old	Cross-sectional	YRBS Previous 12 months	7.7 ^a	7.6 ^a	5.5 ^a	3.0 ^a	4.7 ^a	3.8 ^a
Eaton et al. (2007)	US n=15,214 14–18 years old	Cross-sectional	YRBS Previous 12 months	9.0					
Eaton et al. (2008)	US n=14,103 14–18 years old	Cross-sectional	YRBS Previous 12 months	9.9		8.8	11.0		
Eaton et al. (2010)	US n=16,460 14–18 years old	Cross-sectional	YRBS Previous 12 months	9.8		9.3	10.3		
Howard et al. (2007)	US n=7,179 ^b 14–17 years old	Cross-sectional	YRBS Previous 12 months			10.3			
Howard and Wang (2003a)	US n=7,434 ^d 14–17 years old	Cross-sectional	YRBS Previous 12 months				9.1		
Howard and Wang (2003b)	US n=7,824 ^b 14–17 years old	Cross-sectional	YRBS Previous 12 months			9.2			
Olshen et al. (2007)	US n=8,080 14–17 years old	Cross-sectional	YRBS Previous 12 months			10.6	9.5		
Silverman et al. (2001)	US n=4,163 ^b 14–17 years old	Retrospective population- based survey	YRBS Lifespan			8.9-10.1 ^c			
Silverman et al. (2004)	US n=6,864 ^c 14–17 years old	Retrospective population- based survey	YRBS Previous 12 months			9.8			
			Mean Range	10.7 7.7-16.9	7.6	10.0 5.5-16.8	10.0 3.0-17.1	4.7	3.8

Note: ^aSevere physical violence measured only; ^bAll female sample; ^cTwo intervals of data reported; ^dMale sample

Studies using the YRBS measure consistently report a considerably lower percentage than those that use the other types of measures. The CTS, ad hoc measure and other established instruments categories appear to report fairly consistent prevalence rates and ranges when comparing the means of studies. It is not clear exactly why this disparity exists with the YRBS measure in comparison to the other three categories of measures, although it could be a result of the structure of the measures used. For example, studies using variants of the CTS measure physical ADVA using 2-12 questions in comparison to the YRBS, where physical violence is measured with only one question. A critical overview of these two measures is provided in Section 1.5.1.4.

Overall, all measures are consistent in reporting higher rates for female instigation compared to males. This gender difference is much greater in studies using the CTS, ad hoc measure and other established instrument categories than the YRBS, where the percentage for females is considerably higher than that of males. In some studies, rates for female instigation are nearly double that of males (Barter et al. 2009, Foshee et al. 2001, McDonnell, Ott, and Mitchell 2010 (lifespan measure only), Reeves and Orpinas 2012 and Sears, Byers, and Price 2007). It is worth noting here that participants with previous experiences of CPS care within the other established instruments category (Wekerle et al. 2009) were more than twice as likely to report instigating this type of violence than participants in those studies that used general population samples (Table 1.5). It is not clear why prevalence reports of female instigation are higher in comparison to males. Simon et al. (2010) suggest that gender differences in prevalence reports could be due to sex differences in the willingness of adolescents to report ADVA, which is likely to be influenced by the perceived social acceptability of violence. As such, the authors argue that females may be less willing to disclose victimisation and males less willing to disclose instigation due to the notion that male violence is less socially acceptable.

1.5.1.3. Mutual violence

Six studies provided prevalence estimates for mutual physical ADVA involvement (i.e. when both partners instigate and experience ADVA over the course of their romantic relationship; Giordano et al. 2010). Four of these studies used versions of the CTS (Table 1.2) and reported prevalence statistics ranging from 49-79% with a combined mean of 62% (Giordano et al. 2010, O'Leary et al. 2008, Richards, Branch, and Ray 2014 and Williams et al. 2008). One study using an ad hoc measure (Epstein-Ngo et al. 2014) found that 4% of females and 17% of males reported being both a victim and instigator of physical violence, and one study (Hautala et al. 2014) using another established instrument (VDRS/PDRS: Foshee et al. 1996) found that 18% of adolescents reported mutual ADVA (both males and females). The studies measuring mutual physical ADVA

with CTS items (Giordano et al. 2010, O’Leary et al. 2008, Richards, Branch, and Ray 2014 and Williams et al. 2008) reported worryingly high prevalence rates, however the variations in prevalence between studies and between measures used suggest that mutual ADVA needs investigating further. It has been suggested that adolescents in mutually violent relationships have been found to be more accepting of dating violence than victims only (Gray and Foshee 1997). These findings regarding mutual ADVA have implications for the development of prevention and intervention efforts in terms of understanding more about the nature and dynamics of ADVA in order to effectively address the issue (Wekerle and Wolfe 1999). For example, it is important to acknowledge both male and female ADVA and how their experiences, motives and impact may differ in order to provide effective intervention programmes and inform theoretical frameworks (i.e. primary, secondary and tertiary) for instigators and victims.

1.5.1.4. Methodological factors relevant to the interpretation of prevalence data for physical ADVA

There are some notable methodological features within the studies reviewed deemed important for discussion, which may mean findings need to be considered with caution when comparing and generalising studies that have reported prevalence data. Interestingly, one study reported significantly high percentages for physical victimisation and instigation within the last three months compared to that reported in the same study based on a lifetime measure (McDonnell, Ott, and Mitchell 2010). Based on experience in the last three months, the authors reported physical violence victimisation and/or instigation of up to around 60%, a percentage that was significantly higher than what they reported for the lifetime measure (18-27% for victimisation and 8-20% for instigation). This is surprising as one would expect the higher estimate to be accounted for in the longer lifetime measure and it is not clear why this disparity exists, although this could be due to greater memory recall or due to adolescents not having historical experiences of ADVA until recently (i.e. within the three months prior to this particular study).

Table 1.4

Prevalence of physical dating violence and abuse: Ad hoc measures

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Mutual (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Ackard and Neumark-Sztainer (2002)	US <i>n</i> =81,247 14–17 years old	Cross-sectional	Ad hoc measure Lifespan				4.2	2.6		
Arriaga and Foshee (2004)	US <i>n</i> =526 13-15 years old	Longitudinal study	Ad hoc measure Lifespan	36.0- 48.0 ^d	20.0- 32.0 ^d					
Barter et al. (2009)	UK <i>n</i> =1,353 13–17 years old	Cross-sectional	Ad hoc measure and semi-structured interviews Lifespan				25.0	18.0	25.0	8.0
Barter et al. (2015a)	UK, EU ^h <i>n</i> =3,277 14-17 years old	Cross-sectional	Self-report questionnaire Lifetime				9.0-22.0	8.0-15.0		
Burman and Cartmel (2005)	UK <i>n</i> =1,395 14–18 years old	Cross-sectional	Ad hoc measure Lifespan				9.0- 16.0 ^a	19.0– 32.0 ^a	6.0- 16.0 ^a	4.0- 12.0 ^a
Epstein-Ngo et al. (2014)	US <i>n</i> = 210 14-20 years old	Cross-sectional	Self-report computerised questionnaire Past 2 months			(F)4.0 (M)17.0	25.0	30.0	13.0	1.0
Fox et al. (2014)	UK <i>n</i> =855-869 13-14 years old	Cross-sectional	Ad hoc measure Previous 12 months	17.0- 21.0 ^a	7.0- 8.0 ^a					
Hamby et al. (2012)	US <i>n</i> =1,680 12-17 years old	Cross-sectional	Ad hoc measure Lifespan	6.4						
Howard et al. (2003)	US <i>n</i> =444 12-17 years old	Cross-sectional	Ad hoc measure Previous 3 months	7.0						
Jackson et al. (2000)	New Zealand <i>n</i> =373 16-18 years old	Cross-sectional	Ad hoc measure Lifespan				17.5 ^b	13.3 ^b		
McDonnell et al. (2010)	US <i>n</i> =351 11-18 years old	Cross-sectional	Ad hoc measure Lifespan Previous 3 months				27.0 ^f - 56.4 ^g	17.8 ^f - 60.0 ^g	20.4 ^f - 66.7 ^g	8.4 ^f - 60.0 ^g
Miller et al. (2009)	US <i>n</i> =2,824 11-12 years old	Cross-sectional	Ad hoc measure Previous 3 months		29.0					
Reeves and Orpinas (2012)	US	Cross-sectional	Ad hoc measure	30.0	25.0		23%	37%	33%	17%

	<i>n</i> =624		Previous 3 months								
Schütt (2006)	14-15 years old UK	Cross-sectional	Ad hoc measure Lifespan	21.7	17.7	21.8	21.6	17.9	17.5		
	<i>n</i> =135										
Simon et al. (2010)	16-24 years old US	Cross-sectional	Ad hoc measure Previous 3 months	42.1	28.6	27.4	53.7	31.5	26.4		
	<i>n</i> =5,404										
Wingood et al. (2001)	11-12 years old US	Retrospective survey	Ad hoc measure Lifetime			18.4					
	<i>n</i> =522 ^{ce}										
Zweig et al. (2013b)	14-18 years old US	Cross-sectional	Ad hoc measure Previous 12 months	30.0	20.5	24.0	36.0	25.5	14.0		
	<i>n</i> =3,745										
	12-18 years old										
				Mean	24.8	22.0	10.5	21.3	26.2	25.1	15.8
				Range	6.4-42.1	7.5- 29.0	4.0-17.0	4.2-41.7	2.6-53.7	11-43	1.0- 34.2

Note: ^aDependent on the specific types of the violence; ^bSevere physical violence measured only; ^cAll female sample; ^dTwo intervals of data reported; ^eAfrican American females; ^fLifespan measure; ^gPast 3 months measure; ^hEngland; Bulgaria; Cyprus; Italy and Norway

One study, by Ackard and Neumark-Sztainer (2002) within the ad hoc measure category (Table 1.4) reported noticeably low rates of physical ADVA victimisation, particularly for males compared to other studies in this category and compared to the studies which used other measures, with the exception of research by Coker et al. (2000; Table 1.2). It is likely that this is due to the wording of questions and the way behaviours were measured by Ackard and colleagues. For example, the authors specifically asked respondents whether they had experienced violence from someone they have 'been on a date with'. This may be viewed as asking about specific events rather than a long-term experience in a relationship generally, meaning that individuals are prone to under-reporting (Leen et al. 2013). The severity of violence measured may also impact on the rates of violence reported as more serious forms of violence are often reported less frequently than those considered less serious in nature (Ackard and Neumark-Sztainer 2002 and Krahe and Berger 2005). Ackard and Neumark-Sztainer (2002) measured physical violence, date rape, and physical violence and date rape combined, which represents a more serious category of violence and this factor may therefore account for the lower percentages that they found. This pattern is particularly evident in Krahe and Berger's (2005) prevalence estimates that ranged from 2-44%, with the behaviours measured at the higher end representing less serious forms of violence victimisation such as 'pushing', while the behaviours accounted for in the lower percentage capture the more serious forms of violence such as 'burning the victim'. Such methodological features need to be considered when attempting to compare and evaluate prevalence estimates as methodological differences in terms of the behaviours measured (i.e. seriousness), terminology, question wording, timeframes, and samples used make meaningful comparisons between studies and attempts at generalisations challenging.

Finally, as reported in Section 1.5.1.2, the differences in prevalence rates between the YRBS and CTS were likely to be due to the actual structure of the measures (i.e. number of items) used. It is therefore important to discuss this structure further and in particular, the psychometric properties of these measures and critically evaluate their strengths and weaknesses. This provides the opportunity to gain greater insight into the discrepancies found regarding prevalence, and more importantly enables researchers to learn lessons from previous research and to guide future research so that it is more robust in nature.

Table 1.5

Prevalence of physical dating violence: Other established instruments

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Mutual (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Danielsson et al. (2009)	Sweden n=3,170 15-23 years old	Cross-sectional	NorVold abuse questionnaire. (Swahnberg and Wijma 2003) Lifespan				43.0 ^e	59.0 ^e		
Foshee et al. (2001)	US n=1,186 13-15 years old	Longitudinal Cross-sectional	VDRS/PDRS (Foshee et al. 1996) Someone been on a date with						25.7 ^a	13.9 ^a
Foshee et al. (2015)	US n=4,227 8-10 th grade	Longitudinal (2 waves, 6 months)	VDRS/PDRS (Foshee et al. 1996) Past 3 months		16.0- 15.0 ^g				22.0-20.0 ^g	8.0-9.0 ^g
Gagné et al. (2005)	Canada n=622 ^b 14-20 years old	Cross-sectional	VIFFA (Violence faite aux Filles dans les Fréquentations à l'Adolescence) (Lavoie and Ve'Zina 2002, cited in Gagné et al. 2005) Previous 12 months				25.0- 29.0 ^a			
Harrykissoon et al. (2002)	US n=570 ^{bf} 12-18 years old	Prospective cohort design	Abuse Assessment Screen (modified) Previous 24 months				13.0- 21.0 ^d			
Hautala et al. (2014)	US n=551 15-19 years old	Cross-sectional	VDRS/PDRS (Foshee et al. 1996) Past 12 months	31.0	23.6	18.2%				
Kinsfogel and Grych (2004)	US n=391 14-18 years old	Cross-sectional	Conflict in Relationships Scale (Wolfe et al. 1994, cited in Kinsfogel and Grych 2004) Lifespan		17.0- 19.0 ^a					
Niolon et al. (2015)	US n=1,673 6-8 th grade	Cross-sectional	CADRI (Wolfe et al. 2001) Lifetime		33.0					
Spencer and Bryant (2000)	US n=2,094 12-17 years old	Retrospective survey	Teen Assessment Project (TAP) questionnaire (Telfer, Hirschl, and Mead, J. P. 1996) Lifetime	8.0- 16.0 ^f						
Swahn et al. (2008b)	US n=2,888 12-17 years old	Cross-sectional	VDRS/PDRS (Foshee et al. 1996) Past 12 months	30.7	24.8		28.8	32.6	30.3	18.6

Wekerle et al. (2009)	Canada <i>n</i> =402 ^c 14-17 years old	Cross-sectional	CADRI (Wolfe et al. 2001) Previous 12 months			63.0	49.0	67.0	44.0		
Yahner et al. (2015)	US <i>n</i> =5,647 12-17 years old	Cross-sectional	VDRS/PDRS (Foshee et al. 1996) Past 12 months	20.7	14.0						
Zweig et al. (2014a)	US <i>n</i> =3,745 12-17 years old	Cross-sectional	VDRS/PDRS (Foshee et al. 1996) Past 12 months			23.0	35.0	26.0	14.0		
				Mean	23.6	21.5	18.2	33.6	43.9	34.0	19.8
				Range	12.0- 31.0	14.0- 33.0		17-63	32.6-59.0	21.0-67.0	8.5-44.0
				General population mean				27.8	42.2	25.8	13.8
				General population range				17.0- 43.0	32.6-59.0	21.0-30.3	8.5-18.6

Note: ^aDependent on the specific types of the violence; ^bAll female sample; ^cAll participants were in care of CPS; ^dTwo intervals of data reported; ^eNot just dating partner (e.g. stranger, someone close, partner or ex-partner); ^fAdolescent mothers; ^gWave 1; Wave 2

The YRBS (CDC 2015) was developed in 1990 and monitors six types of health-risk behaviours (i.e. behaviours that contribute to unintentional injuries and violence; sexual behaviours that contribute to unintended pregnancy and sexually transmitted diseases; alcohol and other drug use; tobacco use; unhealthy dietary behaviours; and inadequate physical activity). The survey consists of a total of 89 items, two of which ask about physical and sexual violence within a dating relationship (one for each) in the previous year. The physical violence item asks respondents “how many times did someone you were dating or going out with physically hurt you on purpose? Count such things as being hit, slammed into something, or injured with an object or weapon”. Response options on this scale range from 1 (*did not date in the past year*) to 6 (*6 or more times*). Test-re-test reliability of the YRBS physical dating violence item was examined by Brener et al. (2002), who found that the item had moderate reliability. Baheiraei et al. (2012) examined the reliability and validity of the psychometric properties of the Persian version of the 2009 YRBS questionnaire and found that the physical dating violence item had ‘good’ reliability. To date, the validity of all self-reported data in the YRBS has not been assessed (Brener et al. 2013). Due to the nature of having only one physical ADVA question, it is therefore difficult to evaluate. A final point to note is that the YRBS asks one question about electronic bullying “During the past 12 months, have you ever been electronically bullied? Count being bullied through e-mail, chat rooms, instant messaging, websites, or texting”. It is surprising that bullying via ECT has been recognised in this measure although TAADVA has not yet been addressed.

The CTS was first developed by Straus (1979) and later modified into the Revised Conflict Tactic Scales (CTS2) by Straus et al. (1996) and is reportedly the most widely used measure of conflict and violence in adult intimate relationships (DeKeseredy and Schwartz 1998 and Straus and Mickey 2012), and in adolescent dating relationships using modified or refined versions (see Table 1.2). The CTS2 consists of five factors (negotiation, physical assault, injury, sexual coercion, and psychological aggression) made up of a total of 78 items for individuals to self-report their own behaviours and those of their partners (Straus et al. 1996). Responses measure past year and lifetime violence using a seven point Likert scale ranging from 0 (*never*), 1 (*once*), 2 (*twice*), 3 (*3-5 times*), 4 (*6-10 times*), 5 (*11-20 times*), 6 (*more than 20 times*), and 7 (*not in the past year but it happened before*). Internal consistency of the five factors of the CTS2 range from .73 to .95 (Jose, Olino, and O’Leary 2012, Newton, Connelly, and Landsverk, 2001 and Straus et al. 1996). In addition, Straus et al. (1996) found preliminary evidence of construct validity (i.e. the physical and psychological aggression scales were correlated with others as theoretically expected such as the sexual coercion scale and the injury scale for males) and discriminant validity (i.e. there were no correlations between variables considered unrelated

theoretically such as negotiation with sexual coercion and negation with injury). Further research has been conducted by Straus and Mickey (2012) to establish the internal consistency reliability and validity (including sensitivity, self-defense, socially desirable reporting, and construct validity) of the CTS2 based on a review of studies in male-dominant nations and the International Dating Violence Study (IDVS). The results show that the CTS2 has adequate to high internal consistency reliability (adequate to very good for male-dominant nations and adequate to high in the IDVS), high sensitivity, and good construct validity in male-dominant nations as well as in relatively gender-equal nations (Straus and Mickey 2012). Furthermore, correlations with the Gender Inequality Index suggested that there was no important difference between male-dominant and more gender-equal nations in the reliability of CTS2 scale scores for men or for women.

Various versions and adaptations of the CTS/CTS2 (in terms of the number of items used) have also been used in the ADVA literature. For example, Haynie et al. (2013) and Halpern et al. (2001, 2004) used two physical aggression items with a 'yes/no' response format, whereas Black et al. (2008) used 12 items for physical violence (six mild and six severe) with response options ranging from never to more than five times. The average number of items used by studies adopting versions of the CTS/CTS2 was seven (Table 1.2). Internal consistency of these items has also been found for severe and mild violence victimisation, ranging from .80 to .81 (Black et al. 2008) and .87 for the two items used by Haynie et al. (2013), showing good evidence of reliability for ADVA. Comprehensive validation studies have been conducted using college student couples (Straus et al. 1996), meaning more detailed evaluations of reliability and validity have not been carried out on adolescent samples.

Although preliminary psychometric findings of the CTS are promising, a number of criticisms of the CTS have been made (see DeKeseredy and Schwartz 1998, DeKeseredy and Schwartz 2011, Dobash et al. 1992, Kimmel 2010, Mulford and Blachman-Demner 2013, Straus et al. 1996, Straus 2012, Straus and Mickey 2012 and Walker 1989). The limitations and/or criticisms of the CTS that have been identified in this literature include: (1) difficulty interpreting the severity of acts; (2) unrealistic response frequencies; (3) only including past year experiences with a current partner; (4) misinterpreting data as a result of underreporting; (5) findings of high female perpetration have been criticised; (6) the CTS measures only conflict-instigated violence and ignores male violence used to control women; (7) the CTS does not account for fear, dependency or female devaluation; (8) only a limited set of abusive acts are covered and this is usually minor violence; (9) the motive, reasons, meaning and context of violence is ignored; (10) it is not known whether violence is used in self-defence or who initiated the violence first, therefore gender variations cannot be determined; (11) the CTS does

not measure the psychological impact of violence; and (12) although the CTS measures injuries, these are not directly linked to assaults. Similar criticisms apply to the YRBS particularly as the measurement of physical (and sexual) violence is based on only one question about the prevalence of such behaviour.

In response to these criticisms, Straus (2012) argues that: (1) the structure of the CTS avoids the confounding of independent and dependent variables; (2) that the quantitative categories used for the response frequencies are needed to allow for satisfactory ordinal estimates; (3) that the CTS itself measures four of the most important context and consequence variables (i.e. the four other factors); (4) other context and meaning variables of interest can be, and have been, measured by researchers or clinicians along with the CTS; (5) that the invalidity of the CTS reflects theoretical differences (i.e. patriarchal dominance theory) rather than methodological shortcomings; (6) that using the context and meaning of the events as a criterion for measuring violence will under-count the prevalence of violence; and (7) that there are too many context and meaning variables to practically include. In summary, the number of items used to measure physical ADVA varies significantly in their breadth and depth, and have methodological weaknesses, meaning that it is therefore difficult to get accurate and comparable prevalence levels. The following sections of the chapter will now look at psychological and sexual ADVA, followed by a review of TAADVA prevalence studies.

1.5.2. Psychological and emotional ADVA

A total of 26 studies were found that reported the prevalence of psychological/emotional ADVA (Tables 1.6-1.8). In comparison to physical violence, studies reporting prevalence rates for psychological, emotional, or verbal violence are less well established. Thirteen of these studies included measures of violence using variants of the CTS (Table 1.6), eight employed ad hoc measures (Table 1.7), and five used other established instruments (Table 1.8). These findings will now be discussed in terms of victimisation, instigation and mutual violence accordingly, followed by a discussion of the methodological features of studies relevant to the interpretation of prevalence data.

Table 1.6

Prevalence of psychological/emotional dating violence: Conflict Tactics Scale

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Mutual (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Collin-Vézina et al. (2006)	Canada <i>n</i> =220 ^{ab} 12–18 years old	Cross-sectional	R-CTS Lifespan				58.8-81.5			
Cyr et al. (2006)	Canada <i>n</i> =126 ^{ac} 13–17 years old	Cross-sectional	R-CTS Lifespan				81.7			
Haynie et al. (2013)	US <i>n</i> =2,203 Mean age 16.2 years	Cross-sectional	R-CTS Previous 12 months	24.2	21.4		30.5	16.5	28.2	13.0
Halpern et al. (2001)	US <i>n</i> =6,897 14–17 years old	Cross-sectional longitudinal study from 1994 - 1996	CTS Lifespan	29.0			29.0	28.0		
Halpern et al. (2004)	US <i>n</i> =117 ^d 12-21 years old	Cross-sectional	CTS Previous 18 months	13.0						
Hird (2000)	UK <i>n</i> =487 13–19 years old	Cross-sectional	CTS Previous 12 months				54.0	49.0		
Lavoie et al. (2002)	Canada <i>n</i> =717 ^{ef} 10-18 years old	Longitudinal	CTS Previous 12 months							40.7
Muñoz-Rivas et al. (2007)	Spain <i>n</i> =2,416 16-20 years old	Cross-sectional	M-CTS Previous 12 months						95.3	92.8
O'Leary et al. (2008)	US <i>n</i> =2,363 14–20 years old	Cross-sectional	M-CTS Previous 12 months			94.0	88.0	85.0	92.0	85.0
Richards et al. (2014)	US <i>n</i> =1,316 ^a 7-11 th grade	Cross-sectional	R-CTS Current or most recent partner			77.0	39.0		34.0	
Sears et al. (2007)	Canada <i>n</i> =633 12-18 years old	Cross-sectional	M-CTS Lifespan						47.0	35.0
Spriggs et al. (2009)	US <i>n</i> =10,650 12-18 years old	Cross-sectional	R-CTS Previous 18 months				13.8	13.6		

Tschann et al. (2009)	US n=150 16–20 years old	Longitudinal	R-CTS Most recent partner Previous 6 months	77.0	77.0	77.0	76.0	80.0	75.0	
			Mean	35.8	49.2	85.5	53.7	44.7	62.8	56.9
			Range	13.0- 77.0	21.4- 77.0	77.0- 94.0	13.8-88.0	13.6- 85.0	28.2- 95.3	13.0- 92.8
			General population mean				47.3			
			General population range				13.8-88.0			

Note: R- and M =Revised and Modified CTS; ^aAll female sample; ^bAll participants were in care of CPS; ^cAll participants had previously experienced sexual abuse; ^dSame-sex relationship; ^eAll male sample; ^fDating violence involvement at 16-17 years old

1.5.2.1. Victimization

For studies reporting the prevalence of psychological/emotional ADVA victimisation in general population samples, the means of surveys using the CTS, ad hoc measures and other established instruments reported consistent prevalence rates of 33-36% (Table 1.6 and 1.7). For female victimisation, all types of measures are fairly consistent in reporting prevalence rates with a mean ranging from 45.0-51.5% (Table 1.6-1.8). For male victimisation, the mean of studies for each type of measure range from 40.5-54%. The mean scores of studies employing various measures appear to be fairly consistent, however the percentage of involvement in victimisation is notably higher when broken down by gender than when reported on overall, although unfortunately it is not clear why this is the case.

Although both sexes report a significant amount of victimisation, there was a general trend for slightly more females to report being a victim of psychological/emotional ADVA compared to males. Some studies employing CTS measures or ad hoc measures have reported a notably higher rate of victimisation for females compared to males. In Barter et al.'s (2009) study, females were 20% more likely to report being a victim than males (72% vs. 51%). In Haynie et al.'s (2013) study, females were two times more likely than males to report being a victim of this type of aggression. Burman and Cartmel's (2005) and Schütt's (2006) findings did not follow this trend and slightly more males than females reported being victims of psychological/emotional ADVA. The means of studies within the other established instruments category also reported a slightly higher rate for male victimisation compared to females, although limited data was available in this category of measure. It is worth noting here that the mean score for female victimisation for the general population sample studies was considerably lower than that of the non-general population samples (Collin-Vézina et al. 2006 and Cyr et al. 2006). As noted with regards to physical violence victimisation, non-general populations are more likely to report experiencing psychological/emotional ADVA than those without such previous histories.

Table 1.7

Prevalence of psychological/emotional dating violence: Ad hoc measures

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Mutual (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Barter et al. (2009)	UK <i>n</i> =1,353 13–17 years old	Cross-sectional	Ad hoc measure and semi-structured interviews Lifespan				72.0	51.0	59.0	50.0
Barter et al. (2015a)	UK, EU ^b <i>n</i> =3,277 14–17 years old	Cross-sectional	Self-report questionnaire Lifetime				31.0- 59.0	19.0- 41.0		
Burman and Cartmel (2005)	UK <i>n</i> =1,395 14–18 years old	Cross-sectional	Ad hoc measure Lifespan				32.0- 40.0 ^a	28.0- 51.0 ^a	53.0	40.0
Epstein-Ngo et al. (2014)	US <i>n</i> =210 14–20 years old	Cross-sectional	Self-report computerised questionnaire Past 2 months			29.0 ^c - 38.0 ^d	15.0	18.0	9.0	1.0
Fox et al. (2014)	UK <i>n</i> =855-869 13–14 years old	Cross-sectional	Ad hoc measure Previous 12 months	38.0 ^a	20.0 ^a					
Jackson et al. (2000)	New Zealand <i>n</i> =373 16–18 years old	Cross-sectional	Ad hoc measure Lifespan				81.5	76.3		
Schütt (2006)	UK <i>n</i> =135 16–24 years old	Cross-sectional	Ad hoc measure Lifespan	20.2	28.1		17.0	24.4	30.4	25.0
Zweig et al. (2013b)	US <i>n</i> =3,745 12–18 years old	Cross-sectional	Ad hoc measure Previous 12 months	47.0	26.0		50.0	44.0	32.0	19.0
			Mean	35.1	24.7	33.5	45.2	40.5	36.7	27.0
			Range	20.2- 47.0	20.0- 28.1	29.0- 38.0	15.0- 81.5	18.0- 76.3	9.0-59.0	1.0-50.0

Note: ^aDependent on the specific types of the violence; ^bEngland; Bulgaria; Cyprus; Italy and Norway; ^cFemales; ^dMales

1.5.2.2. Instigation

For psychological/emotional ADVA instigation by measure, the mean of surveys using the CTS was reported at 49% (Table 1.6). The mean statistics for studies employing ad hoc measures or other established instruments were lower (25-29%; Table 1.7-1.8). For female instigation, the mean of those studies employing the CTS report a prevalence rate of 63% (Table 1.6), while ad hoc measures report a lower prevalence rate with a mean of 37% (Table 1.7). Studies using other established instruments do not provide a breakdown of instigation by gender. For male instigation, those studies using the CTS report prevalence rates with a mean of 57% (Table 1.6). Ad hoc measures report male instigation at 27% (Table 1.6). It is not clear why prevalence rates for instigation are significantly higher for those using CTS measures than those using ad hoc measures. It is possible that this is due to the characteristics of the measures used (i.e. the type and number of questions), however the means of studies across measures were fairly consistent with regards to victimisation of psychological/emotional abuse, suggesting that this may possibly be due to individual differences in reporting by respondents. All measures used to report this type of behaviour (CTS and ad hoc) are consistent in reporting higher rates for female instigation compared to males. For example, rates for female instigation were double that of males in Haynie et al.'s (2013) study. Interestingly, as for victimisation, prevalence reports when broken down by gender are higher than when reported on overall, however it is not clear why this disparity occurs.

1.5.2.3. Mutual violence

Only three studies reported the prevalence of mutual psychological/emotional ADVA. Two of these used a version of the CTS (Table 1.6), and prevalence rates ranged from 77-94%, with a mean of 85.5% (O'Leary et al. 2008 and Richards, Branch, and Ray 2014). One study used an ad hoc measure and found that 29% of females and 38% of males reported being both victims and instigators of emotional abuse (Epstein-Ngo et al. 2014). These percentages are notably high, however the authors do not offer any suggestions as to why this may be. It is possible that respondents may be reporting on behaviours that may have been instigated in response to abuse from their partner. It is also not known whether victimisation and instigation occurs in the same relationship or in different ones over time. It is also possible that adolescent romantic relationships are characterised by poor communication skills or an inability to express emotions in a positive healthy way (Mulford and Giordano 2008) resulting in verbal and psychological/emotional aggression. More in-depth research is needed in order to explore the context and impact of psychological/emotional ADVA and of that which is experienced and instigated mutually.

Table 1.8

Prevalence of psychological/emotional dating violence: Other established instruments

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Vic Female (%)	Vic Male (%)
Danielsson et al. (2009)	Sweden <i>n</i> =3,170 15–23 years old	Cross-sectional	NorVald abuse questionnaire (Swahnberg and Wijma 2003) Lifespan			66.0 ^b	54.0 ^b
Gagné et al. (2005)	Canada <i>n</i> =622 ^a 14-20 years old	Cross-sectional	VIFFA (Violence faite aux Filles dans les Fréquentations à l'Adolescence) (Lavoie and Ve'Zina 2002, cited in Gagné et al. 2005) Previous 12 months			37.0	
Kinsfogel and Grych (2004)	US <i>n</i> =391 14-18 years old	Cross-sectional	Conflict in Relationships Scale (Wolfe et al. 1994, cited in Kinsfogel and Grych 2004) Lifespan		20.0		
Niolon et al. (2015)	US <i>n</i> =1,673 6-8 th grade	Cross-sectional	CADRI (Wolfe et al. 2001) Lifetime		20.0-77.0 ^a		
Yahner et al. (2015)	US <i>n</i> =5,647 12-17 years old	Cross-sectional	Michigan Department of Community Health's (MCH 1997) Control and Fear Scales, and Foshee's (1996) Psychological Abuse Scale Past 12 months	32.6	17.6		
				Mean	32.6	28.7	51.5
				Range		17.6-48.5	37.0-66.0

Note: ^aAll female sample; ^bNot just dating partner (e.g. stranger or family member)

1.5.2.4. Methodological factors relevant to the interpretation of prevalence data for psychological/emotional ADVA

Three studies with general population samples reported remarkably high percentages of psychological/emotional ADVA victimisation and/or instigation (Muñoz-Rivas et al. 2007, O’Leary et al. 2008 and Tschann et al. 2009). Interestingly, these studies all used versions of the CTS however, there are inconsistent percentages found even when using the same measure. These higher percentages may be due to differences in the way the questions were asked in each study or because of personal or cultural differences in the individual samples or place of origin (i.e. individual experiences and cultural acceptance of dating violence). Nevertheless, it is clear from the prevalence rates across behaviour types that this type of ADVA represents the most commonly reported type of abuse when compared to physical and sexual violence.

1.5.3. Sexual ADVA

A total of 25 studies reported the prevalence of sexual ADVA. A summary of these studies is provided in Tables 1.9-1.12. Two of these included measures of violence using variants of the CTS (Table 1.9), six used the YRBS (Table 1.10), nine employed ad hoc measures (Table 1.11), and nine used other established instruments (Table 1.12).

1.5.3.1. Victimisation

With regards to studies reporting the prevalence of sexual ADVA victimisation for general population samples by measure, the mean of those surveys that used ad hoc measures reported a prevalence rate of 20% (Table 1.11). Those employing the YRBS or other established instruments reported a prevalence rate half of this at 9.0-9.5% (Table 1.10). Studies employing the CTS did not report on sexual ADVA victimisation overall. For female victimisation, those studies using the YRBS report prevalence rates with a mean of 12% (Table 1.10). Those employing a version of the CTS, ad hoc measures, or other established instruments report a higher percentage mean score for female victimisation ranging from 18-26% (Table 1.9 and 1.11). For male victimisation, the mean of studies using the YRBS or other established instruments is consistent ranging from 5-6% (Tables 1.10 and 1.12). Studies using ad hoc measures on the other hand report a mean of 23% (Table 1.11). Studies using the CTS did not report on male victimisation. Once again those studies employing the YRBS appear to report lower estimates for sexual violence victimisation compared to the other measures. In this case,

those using other established instruments also appear to report fairly low prevalence rates compared to the CTS and ad hoc measures, particularly for male victimisation.

Table 1.9

Prevalence of sexual dating violence: Conflict Tactic Scale

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic Female (%)
Collin-Vézina et al. (2006)	Canada <i>n</i> =220 ^{bc} 12–18 years old	Cross-sectional	R-CTS Previous 12 months	32.9-63.3 ^d
Hird (2000)	UK <i>n</i> =487 13–19 years old	Cross-sectional	CTS Previous 12 months	17.9 ^a
Mean				33%
Range				17.9-48.1
General population mean				17.9

Note: R-CTS =Revised CTS; ^aSevere sexual violence measured only; ^bFemale sample; ^cAll participants were in care of Child Protective Services; ^dDependent on violence severity.

In terms of victimisation by gender, the YRBS, ad hoc measures and other established instruments are consistent in reporting a higher rate of victimisation for females compared to males. This is true for all studies with the exception of Schütt (2006), where male victims surprisingly exceeded females in reports of sexual ADVA victimisation (ad hoc measure; Table 1.11). This finding was in contrast to expectations and previous research. One of the two studies reporting prevalence rates for female victimisation with the CTS measure was conducted with a non-general population sample (Collin-Vézina et al. 2006), and reported a prevalence rate almost three times that of the general population sample. A clear trend is evident which suggests that samples with previous histories of CPS care or sexual abuse report higher rates of ADVA victimisation across the three violence types.

Table 1.10

Prevalence of sexual dating violence: Youth Risk Behavior Survey

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)	
Banyard and Cross (2008)	US <i>n</i> =2,101 12–17 years old	Cross-sectional	YRBS Lifespan	13.2	16.8	9.4			
Eaton et al. (2008)	US <i>n</i> =14,103 14–18 years old	Retrospective population-based survey	YRBS Lifespan	7.8	11.3	4.5			
Eaton et al. (2010)	US <i>n</i> =16,460 14–18 years old	Cross-sectional	YRBS Lifespan	7.4	10.5	4.5			
Coker et al. (2000)	US <i>n</i> =5,414 14–17 years old	Cross-sectional	YRBS Lifespan		21.3 ^a	7.2 ^a	2.5 ^a	4.3 ^a	
Olshen et al. (2007)	US <i>n</i> =8,080 14–17 years old	Cross-sectional	YRBS Lifespan		9.6	5.4			
Silverman et al. (2001)	US <i>n</i> =4,163 ^b 14–17 years old	Retrospective population-based survey	YRBS Lifespan		3.7-3.8 ^c				
				Mean	9.5	12.2	6.2	2.5	4.3
				Range	7.4-13.2	3.8-21.3	4.5-9.4		

Note: ^a Severe sexual violence measured only; ^b All female sample; ^c Two intervals of data reported

1.5.3.2. Instigation

For sexual ADVA instigation, studies using ad hoc measures and other established instruments report prevalence rates with a mean of 8-10.5% (Table 1.11). For female instigation, the mean of surveys using the YRBS and other established instruments report fairly consistent prevalence rates ranging from 2.5-5% (Table 1.10 and 1.12). Ad hoc measures report rates of a mean of up to 10% (Table 1.11). For male instigation, the mean of surveys employing the YRBS report prevalence rates of around 4% (Table 1.10). Ad hoc measures and other established instruments report consistent prevalence rates for males in this case with means ranging between 17-18% (Tables 1.11-1.12). Surveys using the CTS do not provide statistics for male and female instigation of sexual ADVA separately. The YRBS continues to consistently report a lower percentage for sexual violence instigation when compared with the other types of measures used to investigate the prevalence of sexual ADVA. This would suggest that this is likely to be due to the measure used, however it is difficult to know for certain unless the same populations were tested using all the various measures. In terms of instigation by gender, all measures are consistent in reporting a higher rate for male instigation compared to females. In Schütt's (2006) investigation, not one single female reported instigating such behaviour.

1.5.3.3. Mutual violence

De Bruijn, Burrie, and van Wel (2006) identified that victims of unwanted sexual behaviour are often instigators of unwanted sexual behaviour, and instigators are often victims. The authors assert that as adolescents push their own boundaries at a time of sexual exploration, they run the risk of transgressing boundaries and becoming a victim or instigator of unwanted sexual behaviour. Lavoie, Robitaille, and Hébert (2000) have also noted remarkable examples of mutual violence by adolescents who referred to the consensual use of violence in sexual relationships, or what is called 'rough sex'. These findings highlight the presence of risky sexual behaviours within adolescent romantic relationships that may arise at a time of sexual exploration. Such behaviours may potentially place adolescents at risk for sexual ADVA or behaviours that may be considered as abusive. More research is needed to understand the context, meaning and impact of such experiences and how this differs for females and males.

Table 1.11

Prevalence of sexual dating violence: Ad hoc measures

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)
Ackard and Neumark-Sztainer (2002)	US <i>n</i> =81,247 14–17 years old	Retrospective population-based survey	Ad hoc Measure Lifespan			1.2-1.8 ^a	1.0-1.3 ^a		
Barter et al. (2009)	UK <i>n</i> =1,353 13–17 years old	Cross-sectional	Ad hoc Measure and semi-structured interviews Lifespan			6.0-31.0 ^b	3.0-16.0 ^b		
Barter et al. (2015)	UK, EU ^c <i>n</i> =3,277 14-17 years old	Cross-sectional	Self-report questionnaire Lifetime			17.0-41.0	9.0-39.0		
de Bruijn et al. (2006)	Netherlands <i>n</i> =1,700 14–18 years old	Cross-sectional	Ad hoc Measure Previous 12 months	1.6-75.0 ^b	0.8-63.0 ^b	23.0-76.0 ^b	16.0- 75.0 ^b	19.0- 54.0 ^b	37.0- 72.0 ^b
Burman and Cartmel (2005)	UK <i>n</i> =1,395 14–18 years old	Cross-sectional	Ad hoc Measure Lifespan			3.0–10.0 ^a	6.0–8.0 ^a	2.0 ^a	4.0-5.0 ^a
Fox et al. (2014)	UK <i>n</i> =855-869 13-14 years old	Cross-sectional	Ad hoc Measure Previous 12 months	14.0 ^a	4.0 ^a				
Jackson et al. (2000)	New Zealand <i>n</i> =373 16-18 years old	Cross-sectional	Ad hoc Measure Lifespan			76.9	67.4		
Schütt (2006)	UK <i>n</i> =135 16–24 years old	Cross-sectional	Ad hoc Measure Lifespan	15.3 ^a	3.2 ^a	12.2 ^a	19.0 ^a	0.0 ^a	7.3 ^a
Zweig et al. (2013b)	US <i>n</i> =3,745 12-18 years old	Cross-sectional	Ad hoc Measure Previous 12 months	13.0	3.0	16.0	9.0	1.0	4.0
			Mean	20.2	10.5	26.3	22.8	9.9	17.6
			Range	13.0-38.3	3.0-31.9	1.5-76.9	1.2-67.4	0.0-36.5	50.5

Note: ^aSevere sexual violence measured only; ^bDependent on violence severity; ^cEngland; Bulgaria; Cyprus; Italy and Norway

1.5.3.4. Methodological factors relevant to the interpretation of prevalence data

Fairly high rates of sexual ADVA victimisation were found in Jackson, Cram, and Seymour's (2000) study in New Zealand (females: 77%; males: 67%). This study's sexual coercion items covered a continuum of sexual activities ranging from kissing, hugging and genital contact to sexual intercourse, all that were defined as unwanted. Research by de Bruijn, Burrie, and van Wel (2006) in the Netherlands also reported a particularly high percentage of sexual violence involvement, although this study measured sexually abusive behaviour in terms of 'verbal', 'non-verbal/intimidating', and 'physically violent' behaviour incorporating a broader range of abusive conduct. The authors reported sexual ADVA victimisation prevalence rates ranging from 1.6-75%, depending on the seriousness and type of sexual violence measured. The higher percentage accounted for less serious forms of behaviours (e.g. verbal remarks), and the most serious form of violence (e.g. forced sexual intercourse), was reported in 1.6% of cases of victimisation. Similarly, 0.8% report instigating the most serious form of violence, while 63% reported instigating the less severe types of sexual violence. Ackard and Neumark-Sztainer's (2002) findings also support this trend in that lower rates were reported for the most serious forms of sexual violence victimisation (1.2-1.8% for females and 1.0-1.3% for males) which was measured by the specific question: 'Have you ever been the victim of date rape?'. Conversely, both Coker et al. (2000) and Schütt (2006) who also used serious measures including forced sexual intercourse, found higher prevalence rates of around 15%. The seriousness of violence measured and the way questions are asked are certainly likely to affect the type of responses. However, it may be that methodological differences in the samples used such as genuine differences in experience may also account for such variations.

1.5.4. Summary

Despite the use of a variety of measures and methodologies to investigate the prevalence of physical, psychological and sexual ADVA, this review shows that a significant number of young people experience, instigate, or are mutually involved in some form of ADVA within their romantic relationships. For general population samples, rough estimates based on the means of studies across different measures range between: 10-28% for physical violence victimisation, 5-27% for physical violence instigation, and 49-79% for mutual physical violence (Tables 1.2-1.5); 33-55% for psychological/emotional violence victimisation, 25-60% for psychological/emotional violence instigation and 77-94% for mutual psychological/emotional violence (Tables 1.6-1.8); and 5-25% for sexual violence victimisation and 4-18% for sexual violence instigation (Tables 1.9-1.12).

Table 1.12

Prevalence of sexual dating violence: Other established instruments

Source	Sample (country, size, age)	Design	Instrument (type, report period)	Vic (%)	Inst (%)	Vic Female (%)	Vic Male (%)	Inst Female (%)	Inst Male (%)	
Danielsson et al. (2009)	Sweden <i>n</i> =3,170 15–23 years old	Cross-sectional	NorVald Abuse Questionnaire (Swahnberg and Wijma 2003) Lifespan			32.0 ^d	8.6 ^d			
Federal Centre for Health Education (2006)	Germany <i>n</i> =2,500 14–17 years old	Cross-sectional	Youth Sexuality Repeat Survey Lifespan			13.0	4.0			
Federal Centre for Health Education (2010)	Germany <i>n</i> =3,543 14–17 years old	Cross-sectional	Youth sexuality Repeat Survey Lifespan			13.0 ^b – 19.0 ^c	1.0 ^b – 3.0 ^c			
Gagné et al. (2005)	Canada <i>n</i> =622 ^a 14-20 years old	Cross-sectional	VIFFA (Violence faite aux Filles dans les Fréquentations à l'Adolescence) (Lavoie and Ve'Zina 2002, cited in Gagné et al. 2005) Previous 12 months			26.0				
Krahé (2009)*	Germany <i>n</i> =856 17–20 years old	Cross-sectional	Sexual Experiences Survey (Koss and Gidycz 1985 and Koss and Oros 1982) Lifespan			14.9	6.5			
Narring et al. (2004)*	Switzerland <i>n</i> =7,420 16–20 years old	Cross-sectional	Swiss Multicenter Adolescent Survey on Health Previous 12 months			14.4	1.7			
Sears et al. (2007)	Canada <i>n</i> =633 12-18 years old	Cross-sectional	Sexual Experiences Survey- Revised (Koss, Gidycz, and Wisniewski 1987) Lifespan					5.0	17.0	
Niolon et al. (2015)	US <i>n</i> =1,673 6-8 th grade	Cross-sectional	CADRI (Wolfe et al. 2001) Lifetime		15.0					
Yahner et al. (2015)	US <i>n</i> =5,647 12-17 years old	Cross-sectional	Two sexual coercion items from Foshee's (1996) PDRS Past 12 months	9.1	1.8					
				Mean	9.1	8.4	19.4	4.6	5.0	17.0
				Range		1.8-15.0	13.0-32.0	2.0-8.6		

Note: ^aAll female sample; ^bDependent on violence severity; ^cAdolescents from immigrant families had a higher rate of victimisation than those from German (native) families; ^dNot just dating partner (e.g. stranger or family member)

There was a clear trend across violence types for non-general population samples to report experience of victimisation and/or instigation across all types of ADVA of up to two-to-three times that of the general population sample studies. Although there are some considerable variations in prevalence rates reported both within and between measures, it is apparent from this review that the most frequently reported type of ADVA is psychological/emotional, followed by physical and then sexual abuse. It is not clear to what extent these findings are due to genuine differences in experiences or willingness to report experiences or whether these are due to nature of the instruments, questions, terminology, and timeframes used to measure ADVA. It is also possible for example, that adolescents may be more willing to disclose experience or involvement in psychological/emotional aggression than physical or sexual abuse.

Although both sexes reported a notable amount of physical violence involvement, there was a general trend when using the ad hoc measure and other established instrument category for slightly more males to report experiencing this type of abuse whilst more females reported instigating it. This may be a result of the perceived reduced social acceptance of male violence towards women (Simon et al. 2010). These social norms are characterised by chivalry, the notion of societal norms that endorse the protection of women from harm by men, discouraging the abuse of women (Felson 2002). This may mean that male instigators are less willing to disclose any involvement in abusive behaviours or take part in such research at all due to the perception that such behaviour is disapproved of societally (Lewis and Fremouw 2001). Female respondents on the other hand may be more willing to disclose instigation due to the perceived reduced social disapproval of female violence towards males. In terms of psychological/emotional abuse, females generally reported both experiencing and instigating this type of ADVA more than males. Some of the most frequent forms of psychological aggression reported were name-calling (Hird 2000), swearing (Halpern et al. 2001), and being made fun of (Barter et al. 2009 and Kinsfogel and Grych 2004). A notable amount of both physical and psychological/emotional ADVA was reported to be mutual.

Sexual ADVA in comparison to physical and psychological/emotional abuse appears to be the form of violence that is characterised by clear gender differences in its prevalence with males more often identified as the instigators while females are more often identified as the victims. This finding reflects the gendered nature of violence (i.e. male dominance and control over women) outlined by feminist theoretical perspectives (Brownmiller 2013, Pence and Paymar 1993, Walker 1989 and Yllö and Bograd 1990) and may have implications for the theoretical explanations of ADVA (which will be discussed in detail in Chapter 2). Sexual violence may also consist of mutually abusive behaviours ranging from verbal and non-verbal to physical

sexually abusive behaviours that are considered to arise as a result of the transitional period of adolescent sexual exploration (de Bruijn, Burrie, and van Wel 2006). However, de Bruijn, Burrie, and van Wel (2006) measured less severe, non-physical sexually abusive behaviour, meaning the severity of sexual violence may play a factor in terms of gender and power imbalances. A final observation to note here is that sexual violence is the least prevalent type of ADVA behaviour. Reporting any type of ADVA is likely to be influenced by social desirability, however sexual ADVA is likely to be particularly subject to socially desirable responding resulting in an underestimated prevalence of such type of violence (Bell and Naugle 2007, Fernández-González, O'Leary, and Muñoz-Rivas, 2013, Lewis and Fremouw 2011 and Simon et al. 2010). Therefore, the true extent of sexual ADVA (and indeed other types of ADVA) is likely to be skewed by these factors and left largely unknown.

Researchers need to acknowledge the limitations of self-report measures and be aware of strategies that can be used to identify and eliminate these limitations as much as possible (Wekerle and Wolfe 1999). In order to try and manage such risks posed to the authenticity of data collected, investigators should incorporate social desirability scales within or alongside dating violence measures specifically designed for the target age group of respondents. Shortened social desirability scales for children and young people have been developed (Crandall, Crandall, and Katkovsky 1965, 1991). Using such scales would enable researchers to assess the extent to which participants are likely to respond in a socially desirable way and therefore assess the authenticity of results. Another strategy would be to build in test-retest questions within measures, or to test and retest the measure with the same sample on another occasion in order to enhance confidence in the reliability of self-report surveys (Bryman 2012). The difficulty with such self-report methods is that researchers must ultimately acknowledge the risks of socially desirable responding or the risks of participants not wanting to partake in research of a sensitive nature (Rosenbaum and Langhinrichsen-Rohling 2006).

Inconsistencies in prevalence statistics of ADVA reported across studies leads to challenges when attempting to generalise and compare findings of studies, even when similar measures are used. For example, there are various versions of the CTS used by researchers, which may be amended or refined to include a selected number of items. Researchers need to bear in mind definitional issues when examining ADVA and the specific terminology used in surveys (Barter 2009). The way questions are asked, for example, may influence the way participants respond. This was evidenced in Ackard and Neumark-Sztainer's (2002) investigation where participants were asked specifically about experiences on 'dates', rather than long-term relationship experiences. This appears to have resulted in much lower prevalence ratings for physical and sexual ADVA victimisation compared to other studies using similar measures and in general. Another methodological consideration of note

is the timeframe in which respondents are asked to report experienced or instigated behaviours that varied from 3-18 months, to lifetime measures. In one study the experiences of respondents with regards to their current or most recent dating partner were reported (Tschann et al. 2009). Each study regardless of the methods, measure, and timeframe used, offers their own justifications for the particular methodologies employed, however this makes attempts to compare and synthesise the findings more challenging. What is clear from this review is that those investigations employing the YRBS measure tend to report consistently lower prevalence estimates than those employing versions of the CTS, ad hoc measures, or other established instruments.

More research is needed to explore the context, gender differences, and impact of ADVA victimisation and instigation in order to understand the dynamics of such abusive behaviours in relationships during adolescence. It has been suggested that the use of discreet behavioural measures may not fully capture the complexity of the dynamics involved in adolescent dating relationships or the contextual factors such as gender (Mulford and Blachman-Demner 2013). The CTS for example is not intended to measure attitudes about conflict or violence or the causes or consequences of using different tactics (Straus et al. 1996). Therefore, prevalence studies should be combined with qualitative investigations in order for an in-depth understanding of the context, meaning and impact of ADVA that is also supported by quantitative findings. More uniform definitions and measures would also enable the collection of more comparable data that would allow broader generalisations to be made.

1.6. Prevalence of TAADVA

Only 16 empirical studies were found that investigated the nature and prevalence of TAADVA and a summary of these studies is provided in Table 1.13. The majority of these studies focused specifically on the role of ECT in ADVA, although some examined this issue as part of a larger investigation into the nature and prevalence of ADVA. Studies that have considered TAADVA have all used ad hoc self-report measures adapted for the individual studies. For example, four studies (Cutbush et al. 2010, Cutbush et al. 2012, Yahner et al. 2015 and Zweig et al. 2013b) used 6-8 items from Picard's (2007) investigation. Barter et al. (2009) asked two questions regarding emotional abuse and ECT including monitoring, and humiliating and threatening behaviours and also explored TAADVA qualitatively with adolescents using semi-structured interviews. Fox et al. (2014) asked one question regarding a dating partner checking phone call and message histories. Draucker and Martsof (2010) explored the transcribed narratives of young adults' (age 18-21) retrospective experiences of ADVA aged 13-18. Draucker and Martsof (2010) identified six ways in which ECT was used in participants'

experiences of ADVA or aggression although not all of these consisted of ways in which this was abusive. These comprised: arguing with a partner; monitoring or controlling the activities or whereabouts of a partner; instigating emotional or verbal aggression against a partner; seeking help during a violent episode; limiting a partner's access to oneself; and reconnecting with a partner after a break-up or violent event.

1.6.1. TAADVA victimisation and instigation

Broadly, depending on the behaviour type measured and the way the questions were asked, prevalence rates for TAADVA victimisation and instigation across studies range from 10-56% and 7-54% respectively (Table 1.13). Most studies tend to report estimates that fall within the range of 10-30% for victimisation and 5-15% for instigation. Only Epstein-Ngo et al. (2014) reported on mutual TAADVA (38% for females and 35% for males). With regards to TAADVA of a sexual nature, 4-33% report being victimised and 3-5% report instigating it. Niolon et al. (2015) also found that 6% of adolescents reported stalking a partner through ECT. When examining TAADVA by gender, Barter et al. (2009) found that females were more likely to be a victim of psychological/emotional TAADVA than males. Zweig et al. (2013a) and Dick et al. (2014) found that females were more likely to be victims of sexual and non-sexual TAADVA than males. In terms of non-sexual TAADVA, Zweig et al. (2013a) found that while females reported slightly more victimisation than males, this difference was only marginal. Males were more likely to report instigation of sexual TAADVA while females were more likely to report instigation of non-sexual TAADVA (Zweig et al. 2013b and Niolon et al. 2015). Females also reported more instigation and victimisation of TAADVA in Epstein-Ngo et al.'s (2014) research. A significant percentage (over 60% for all behaviour types) of the 13-18 year olds in Picard's (2007) investigation reported that they perceived TAADVA to be a serious problem for teenagers their age who are in relationships. This statistic is much higher than that reported for personal experience in this study (10-30%) indicating that either prevalence reports for TAADVA are underestimated or that there may be heightened perceptions of concern about such issues. Evidently, TAADVA is something that many adolescents are aware of and/or see as a problem for people their age, regardless of disclosure of personal experience of TAADVA.

Table 1.13

Prevalence of technology-assisted adolescent dating violence and abuse

Source	Sample	Design	Instrument	Findings:	Vic (%)	Inst (%)	Vic F (%)	Vic M (%)	Inst F (%)	Inst M (%)
Associated Press and MTV. (2009)	US N=1,247 14 to 24 years	Cross-sectional	Ad hoc online interview survey Lifespan	Feel like their partner checks up on them either online or on a mobile phone, to see where they are, who they are with or what they are doing, too often	22.0	15.0				
				Say their partner complains that they check up too often						
				Partner has checked the text messages on their mobile phone without their permission	25.0					
				Had a boyfriend or girlfriend call them names, put them down, or say really mean things to them on the Internet or mobile phone	12.0					
				Had a boyfriend or girlfriend demand passwords	10.0					
Associated Press and MTV. (2011)	US N=1,355 14-24 years	Cross-sectional	Ad hoc online interview survey Lifespan	Experienced at least some form of digital dating abuse	41.0					
				Checked up with you multiple times per day on the Internet or on your mobile phone, asking where you are, who you are with, or what you are doing	27.0					
				Read your text messages without your permission	27.0					
				Made you remove former girlfriends or boyfriends from your friends list on Facebook, MySpace or other social networking sites	15.0					
				Called you names, put you down, or said really mean things to you on the Internet or on your mobile phone	14.0					
				Demanded to know the passwords to your email and Internet accounts	13.0					
				Contacted you on the Internet or your mobile phone to ask you to have sex or engage in sexual acts when you did not want to	6.0					
				Spread rumours about you on the Internet or on a mobile phone	5.0					
				Used information posted on the Internet against you, to harass or embarrass you	5.0					
				Contacted you on the Internet or on your mobile phone to threaten to hurt you	5.0					
				Barter et al. (2009)	UK N=1,353 13-17 years	Cross-sectional	Ad hoc measure and semi-structured interviews Lifespan	Partners had used mobile phones or the Internet to humiliate and threaten them		
Partners had frequently checked up on their movements by phone or text			42.0					29.0		

Barter et al. (2015a)	UK, EU ^a N=3,277 14-17 years	Cross-sectional	Self-report questionnaire Lifetime	Online emotional violence (putdowns, nasty posts, threats, controlling friends or activities, checking up on you and trying to make friends stop liking you via a mobile or online)	40.0	38.0-48.0	20.0-46.0
Cutbush et al. (2010)	US N=4,282 Mean age 14.3 years	Cross-sectional	Ad hoc measure (Picard 2007) Lifespan	Experience of some form of psychological electronic dating aggression	56.0	29.0	
				Partner had used a mobile phone, email, text message or Web chat to threaten to hurt them physically	7.0	3.0	
				Partner had shared private or embarrassing pictures/video of them using a mobile phone, email, IM, web chat, a blog, or a SNS like MySpace or Facebook	8.0	5.0	
				Been afraid to not respond to a mobile phone call, email, IM, or text because of what their partner might do	8.5	4.0	
				Partner had used information posted on a SNS against them (to harass, put them down, etc.)	11.0	6.0	
				Partner had spread rumours about them using a mobile phone, email, IM, text, web chat, a blog, or a SNS	21.0	7.0	
				Partner had asked them via mobile phone, email, IM, text, or web chat to have sex or engage in sexual acts when they did not want to	22.0	5.0	
				Partner had called their mobile phone or sent emails or text messages when they did not want them just to make them mad	31.0	14.0	
				Partner had called them names, put them down, or said really mean things to them using a mobile phone, email, IM, text, web chat, or a blog	35.5	20.0	
				Cutbush et al. (2012)	US N=1,430 Mean age 12.3 years	Cross-sectional	Ad hoc measure (Picard 2007) Lifespan
Dick et al. (2014)	US N=1008 ^a 14-19 years	Cross-sectional	Self-report questionnaire Past 3 months	Past cyber dating abuse (Inc. mobile apps, social networks, texts, or other digital communication)	41.4		
				Sexual TAADVA	12.6	13.7	9.2
				Tried to get you to talk about sex when you did not want to	8.0	8.8	5.5
				Asked you to do something sexual that you that you did not ...want to do	8.0	9.1	4.2
				Posted or publicly shared a nude or seminude picture of you	1.5	1.3	2.1
				Non-sexual TAADVA	37.4	40.1	28.9
				Repeatedly contacted you to see where you were/who you ...were with	28.4	30.9	20.5

				Made mean or hurtful comments	14.7	15.9	11.0		
				Spread rumors about you	7.0	7.0	6.7		
				Made a threatening or aggressive comment to you ^b	7.8	7.8	7.6		
				Requests for sexual images					
				Asked you to send nude or seminude pictures of yourself	29.0	32.6	17.6		
Draucker and Martsof (2010)	US N=56 18-21 years	Retrospective	Transcribed narratives Adolescent dating relationships at 13-18 years old	Provided references about the adolescent use of electronic technologies in monitoring or controlling a partner	53.6				
				Provided references about monitoring or controlling a partner via:					
				Mobile phone	44.6				
				Text message	8.9				
				Social Networking Sites	12.5				
				Emails	3.6				
				Websites	1.8				
				Key-loggers	1.8				
				Provided references to the adolescent use of electronic communication technologies in perpetrating emotional or verbal aggression against a partner		53.6			
				Provided references about the perpetration of emotional or verbal aggression against a partner via:					
				Mobile phone		41.1			
				Text message		8.9			
				Social networking Sites		8.9			
				Instant messages		1.8			
Epstein-Ngo et al. (2014) ^c	US N=210 14-20 years old	Cross-sectional	Self-report computerised questionnaire Past 2 months	Technology-delivered dating aggression (text, email and social media)		10.0	14.0	13.0	7.0
Fox et al. (2014)	UK N=855-869 13-14 years	Cross-sectional	Ad hoc measure Previous 12 months	Ever checked up on who you have phoned or sent messages to at least once	17.3	12.2			
Hinduja and Patchin (2011)	US N=4,400 11-18 years	Cross-sectional	Ad hoc measure Lifespan	Experience of some form of electronic dating violence	12.0				
				Prevented a romantic partner from using a computer or mobile phone	10.0	7.0			
				A romantic partner posted something publicly online to make fun of, threaten, or embarrass the other	6.0	5.0			
				Received or sent a threatening mobile phone message from/to a romantic partner	10.0	7.0			

				A romantic partner uploaded or shared a humiliating or harassing picture of them online or via their mobile phone	4.0	4.0
Korchmaros et al. (2013)	US N=615 14-19 years	Cross-sectional	Ad hoc measure Previous 12 months	Perpetrated at least one of four psychological ADVA behaviours (in person, phone call, online, and text messaging)		46.0
Picard (2007)	US N=382 13-18 years	Cross-sectional	Ad hoc online measure Lifespan	Text messaged or called 10, 20, or 30 times an hour by a partner to find out where they are, what they are doing, or who they are with	30.0-36.0	
				Called names, harassed, or put down by their partner through mobile phones and texting	25.0	
				Contact that didn't want to make you mad	25.0	
				Asked by mobile phone or the Internet to engage in sexual activity when they did not want to	22.0	
				Partner has used a mobile phone or the Internet to spread rumours about them	19.0	
				Partner used a SNS to harass or put them down	18.0	
				Pretend to be you on email, text messages, IM, chat, a networking site	17.0	
				Partner has shared private or embarrassing pictures/videos of them	11.0	
				Partner has made them afraid not to respond to a mobile phone call, email, IM or text message because of what he/she might do		
				Threatened physically via email, IM, text, chat, etc.	17.0	
				Partner has actually bought a mobile phone or minutes for them	10.0	
				Use spyware to track internet activity	16.0	
					5.0	
Tompson et al. (2013)	US N=1,297 14-24 years	Cross-sectional	Ad hoc online interview survey Lifespan	Experienced at least some form of digital dating abuse	38.0	
				Partner checked up on them multiple times per day on the Internet or mobile phone to ask where you are, what you are doing, who you are with	22.0	
				Partner has read their text messages without permission	21.0	
				Partner made them remove former girlfriends or boyfriends from friend lists on a SNS	13.0	
				Partner called them names, put them down or said really mean things on the Internet or cell phone	9.0	
				Partner demanded to know passwords to email/Internet accounts		
				Partner used the Internet, or text message to pressure them into unwanted sexual activity	8.0	
				Partner used information posted on the Internet against them to harass or embarrass them	4.0	
					4.0	

				Partner spread rumour about them on the Internet or on a mobile phone	3.0					
				Partner contacted them on the Internet or mobile phone to threaten to harm them	2.0					
				Always or sometimes feel that their partner tries to check up on them too often	19.0					
				Feel like partner tries to pressure them to respond to calls, texts, emails or IMs	17.0					
Yahner et al. (2015)	US N=5,647 12-17 years	Cross-sectional	Ad hoc measure with 6 items from Picard (2007) Past 12 months	Ad hoc measure with 6 items from Picard (2007)	18.0	8.1				
Zweig et al. (2013b)	US N=3,745 12-18 years	Cross-sectional	Ad hoc measure Previous 12 months	Experience of cyber dating violence	26.0	12.0				
				Experience of sexual cyber dating violence	11.0	3.0	15.0	7.0	2.0	4.0
				Experience of non-sexual cyber dating violence	22.0	10.5	23.0	21.0	13.0	7.0

Note: IM: Instant Messenger; SNS: Social Networking Site; *Approximately; ^aAdolescents seeking care at school-based health centers; ^bSeven items from Ybarra et al. (2007) and Bennett et al. (2011); ^cPart of a larger study in an urban emergency department

1.6.2. Method of ECT used in TAADVA

Draucker and Martsof (2010) are two of the few authors to break down experiences of abusive behaviour by ECT type using transcribed narratives from respondents. Although Draucker and Martsof (2010) looked at various ECTs, their study used retrospective accounts of young adults' (age 18-21) adolescent (age 13-18) experiences of only two types of behaviour (emotional abuse and controlling/monitoring behaviour). It was found that out of the 54% of young adults who reported adolescent experiences of TAADVA, the most common ECTs used were phone calls (45%), followed by social networking sites (12.5%), and text messaging (9%; Table 1.13). Less popular methods, albeit still present, were via emails, websites, and key-loggers. A similar pattern emerged with regards to instigation of emotional or verbal aggression against a partner, with mobile phone (calls) being the most frequently identified technology (41%), followed by text message, social networking sites, and instant messenger. The most frequently reported type of behaviour in Zweig et al.'s (2013b) investigation was a romantic partner's use of a young person's social networking account without permission. Draucker and Martsof (2010) provided some examples of behaviours described by respondents in their transcribed narratives. Most commonly, the participants described how their partner had checked up on them by calling their phone multiple times. Many participants admitted going through voice mail recordings or stored text messages in their partners' phones to determine whom they had been talking to. Participants also provided examples of romantic partners leaving voice mails or text messages threatening to harm them if they did not return their partner's calls. The verbal aggression experienced by respondents was sometimes reported as being posted online in public forums and was described as being insulting, demeaning and threatening.

Korchmaros et al. (2013) also provided a breakdown of psychological ADVA/TAADVA via four different methods (including face-to-face), and found that of the 46% of respondents who reported psychological ADVA/TAADVA instigation, the most commonly used method was in person (71%) followed by text message (38%), phone call (30%), and online (13%). Korchmaros et al. (2013) only looked at instigation of TAADVA and ignores different types of call, text and online communication (i.e. voice, picture, and video messages via specific types of social media). Korchmaros et al. (2013) assert that the use of these ECTs may not be equal, evidenced by their finding that psychological ADVA instigation was almost three times more frequent via text messaging compared to online. The authors suggest that this may be a result of having continuous access to texting via a mobile phone

compared to that of the Internet, which may vary throughout the day unless one has constant access to such tools via for example, a smartphone. However, adolescents do increasingly have access to such tools. Findings from a nationally representative survey of 802 adolescents aged 12-17 years old in the US has shown that 37% of adolescents have smartphones, an increase of 14% from 2011 (Madden et al. 2013). Furthermore, 74% adolescents say they access the Internet on mobile phones, tablets, and other mobile devices at least occasionally (Madden et al. 2013). Importantly, 24% of respondents in Korchmaros et al.'s (2013) study said that they had used both traditional and technology-assisted methods in the instigation of psychological ADVA/TAADVA. This suggests that ADVA experienced or instigated via ECT is not distinct from that conducted in a face-to-face context but often experienced as a continuum of abusive behaviour.

1.6.3. Continuum of Abuse?

It has been identified that TAADVA is associated with face-to-face ADVA. For example, Cutbush et al. (2012) found that TAADVA instigation was associated with psychological, physical, and sexual ADVA instigation, and that TAADVA victimisation was associated with psychological ADVA victimisation and instigation, physical ADVA instigation, and sexual ADVA victimisation. Zweig et al. (2013b) similarly identified that those who experienced TAADVA were seven times more likely to experience sexual coercion and that those who report TAADVA instigation are 17 times more likely to instigate sexual coercion. Barter et al. (2009) also identified that for those young people who were already in a violent relationship, ECT provided an extra mechanism through which partners could exert control. Females commonly reported that such control was often associated with a partner's wish to restrict their communication with peers they met online, especially males. Notably, the use of ECTs such as the Internet enabled control by partners to extend into every aspect of adolescents' social lives in both the online and offline environment. The adolescent females reported varying views on what was seen as acceptable levels of contact and therefore considered certain behaviours as a sign of caring rather than viewing them as intrusive. For example, some females justified their partner's monitoring or controlling behaviours based on feeling loved rather than checked up on, whereas others recognised that such control might progress from being nice to becoming unhealthy (Barter et al. 2009). Draucker and Martsof (2010) similarly found that some participants reported that controlling or monitoring

behaviours were motivated by care or concern, however most acknowledged that such behaviours were often due to concerns for infidelity or relationship insecurity.

It is worth noting here that the prevalence statistics for TAADVA are considerably lower than those reported for psychological/emotional ADVA victimisation of a traditional nature when comparing studies that measured both. For example, Barter et al. (2009; females: 12-31%; males: 4-21% vs. females: 72%; males: 51%), and Zweig et al. (2013b; overall: 22%; females: 23%; males: 21% vs. overall: 47%; females: 50%; Males: 44%). With regards to instigation, a similar pattern emerges, for example, Zweig et al. (2013b; overall: 10.5%; females: 13%; males: 7% vs. overall: 26%; females: 32%; males: 19%). It is possible that reports of traditional ADVA are underestimated as psychological/emotional abuse instigated via ECT may not have been directly included in traditional measures. A slightly different pattern occurred within Zweig et al.'s (2013b) findings with regards to sexual TAADVA when compared to direct sexual ADVA victimisation (overall: 11%; females: 15%; males: 7% vs. overall: 13%; females: 16%; males: 9%) and instigation (overall: 3%; females: 2%; males: 4% vs. overall: 3%; females: 1%; males: 4%). Interestingly, reports of sexual ADVA are fairly consistent regardless of whether reported in a traditional or TAADVA-based context. It is not clear whether sexually abusive behaviours experienced or instigated via ECT have been reported on in studies investigating traditional sexual ADVA.

1.6.4. Methodological factors relevant to the interpretation of prevalence data

Due to differences in the way each study measures, collects and reports their data (e.g. the various reporting timeframes and the wide range of behaviour items and questions used), attempts at making generalisations and accurate comparisons, as with ADVA, becomes a difficult task. An instrument is needed that will enable future assessment to be more consistent and comparable. The instrument needs to be comprehensive in terms of distinguishing between various methods of ECT as well as the different types of abusive and controlling behaviours as they may have different impacts. It would be useful to include measures of behaviours that may be conducted in person or via ECT in order to explore whether ADVA via ECT is connected to that in the offline realm and to compare these experiences of involvement. It would also be beneficial to measure experiences of TAADVA victimisation and instigation and the overlap of roles of involvement among male and female adolescents. Despite differences in measures across studies investigating TAADVA, it is clear that

TAADVA is prevalent in adolescent dating relationships, highlighting the relevance of ECT to ADVA. Broadly, ECT appears to provide six avenues of abusive behaviour: psychological/emotional abuse (e.g. mean, hurtful or insulting comments or put downs); threatening comments; embarrassing/humiliating behaviours (e.g. spreading rumours or sharing private pictures); control through harassment or excessive contact (e.g. checking behaviours); sexual harassment or coercion; and monitoring or controlling ECT use, contacts or the restriction of ECT use. Although many ADVA behaviours can be experienced or instigated in person or via ECT, the extent to which ECT creates new victims and instigators of ADVA or whether this occurs as a continuum of psychologically/emotionally abusive or controlling behaviours needs further empirical investigation.

1.6.5. Summary

Increasing access to affordable, fast-paced methods of ECT has led to many positive opportunities for adolescents in terms of relationship development and maintenance. This has also created new risks in which ECT can be used to instigate abusive or controlling behaviours within dating relationships. A relatively new area of research has highlighted the relevance of ECT to ADVA as a prevalent concern and has been reviewed in this chapter. Despite inconsistencies in the prevalence reports between the individual studies reviewed, it is clear that TAADVA is an issue for a significant number of the adolescent respondents in these studies with 10-56% reporting experiencing some form of victimisation and 7-54% reporting instigating some form of TAADVA. Females were more likely to report being a victim of both non-sexual and sexual TAADVA. Females were also more likely to report instigating non-sexual TAADVA and males were more likely to report instigating sexual TAADVA. These gender differences are consistent with reports of traditional psychological/emotional, and sexual ADVA. Reports of psychological/emotional ADVA were considerably higher than those reported for TAADVA. Those of a sexual nature were fairly consistent regardless of whether reported on in a traditional or technology-assisted context.

In terms of the individual ECTs used, mobile phones (calls and texts in particular) appear to be the most commonly reported form of ECT used, followed by social networking sites. However, the epidemiology of TAADVA remains largely unknown (Korchmaros et al. 2013). More research is needed to determine the degree to which different methods of ECT are used within the context of TAADVA. Some evidence has suggested that ADVA is experienced as a continuum of violence in

person and via ECT (Barter et al. 2009, Cutbush et al. 2010, 2012, Korchmaros et al. 2013 and Zweig et al. 2013b). Further research is needed to explore the relationship between ADVA in both the traditional and online realm and examine the extent to which ADVA and TAADVA are experienced or instigated as a continuum of abusive behaviour and whether ECT creates new victims or instigators of TAADVA. More consistent measures are needed in order to allow for reliable estimates of prevalence to be achieved and generalisations between studies to be made. Research into the role of ECT in adolescent romantic relationships for both abusive and non-abusive purposes, before, during, and after these relationships have ended would also improve our understanding of how such tools are used within the context of ADVA. The psychological impact of TAADVA compared to that of traditional ADVA is also yet to be determined.

1.7. The Relevance of ECT to the Psychological Impact of TAADVA

There has been evidence to suggest that the impact of cyberbullying may be perceived as comparable to that of traditional bullying (Kubiszewski et al. 2013, Ortega et al. 2010 and Smith et al. 2008). Fredstrom, Adams, and Gilman (2011) for example, reported that school-based and electronic victimisation were both associated with lower self-esteem and self-efficacy as well as higher stress, anxiety, and depressive symptoms. Some studies have reported that the impact of cyberbullying is distinct from traditional forms of bullying and is associated with increased depressive symptoms and suicidal ideation (Bonanno and Hymel 2013 and Wang, Nansel, and Iannotti 2011). Campbell et al. (2012) found that although students (aged 9-19) who had been victimised by traditional bullying reported that they felt their bullying was harsher, crueller and had more of an impact on their lives than those students who had been cyberbullied, the cyber-victims reported significantly more social difficulties and higher levels of anxiety and depression than traditional victims. Some young people's perceptions of the impact of cyberbullying have revealed that they believe cyberbullying causes greater harm to the victim than that of traditional forms of bullying (Spears et al. 2009). Slonje and Smith (2008) found that most adolescents in their Swedish sample of 360, 12-20 year olds thought that text message and email bullying had less of an impact than traditional bullying, while phone call bullying was perceived as comparable in impact to traditional bullying. Picture/video clip bullying was deemed to have the most negative impact and this was attributed to the breadth of the audience and the concreteness effect (i.e. actually seeing the picture/clip; Slonje and Smith 2008). It is possible that the

psychological impact of ADVA will be comparable to the impact of TAADVA. To date, limited research is available which considers this in adolescents and more specifically in terms of the individual ECTs used.

The perceived impact of technology-assisted domestic violence, online harassment, or cyber-stalking has been seen as vulnerable to being minimised in relation to physical violence due to the perceived distance separating the victim from immediate physical harm (Hand, Chung, and Peters 2009 and McCall 2004). However, research with young adult and adult samples has found that constantly receiving harassing messages from an intimate partner may heighten perceptions of vulnerability, potentially escalating the perceived threat of physical violence (Dimond, Fiesler, and Bruckman 2011 and Melander 2010). Some identified impacts of ECT-based abuse and harassment with regards to adult samples have been identified to include depression, helplessness, feeling sick, extremely anxious, annoyed, distressed, or fearful for one's safety (Logan 2010 and Truman 2007). In Madlock and Westerman's (2011) study of young adults (18-33 years old), experiences of cyber-teasing in romantic relationships often resulted in retaliation by one partner to another in both the online and offline environment, which sometimes escalated into verbal and/or physical aggression. It is not clear to what extent these impacts may also be applicable to victims of TAADVA.

The psychological impact of ADVA has been identified to include effects on young people's psychological/emotional wellbeing which includes emotional problems such as feelings of anger, fear, hurt, confusion, sadness, guilt/shame and embarrassment, particularly for females (Barter et al. 2009, Burman and Cartmel 2005, Ismail, Burman, and Ward-Griffin 2007, Jackson, Cram, and Seymour 2000, Molidor and Toleman 1998 and O'Keefe and Treister 1998). Respondents have also reported depressive symptoms, suicidal thoughts, higher levels of posttraumatic stress, sleep disturbances, and anxiety (Ackard, Eisenberg, and Neumark-Sztainer 2007, Banyard and Cross 2008, Callahan, Tolman, and Saunders 2003, Ismail, Burman, and Ward-Griffin 2007 and Silverman et al. 2001). Behavioural problems associated with the effects of ADVA victimisation include health risk behaviours such as cigarette smoking, suicide attempts, binge-eating, smoking marijuana, high substance use, and unhealthy weight control behaviours (Ackard, Eisenberg, and Neumark-Sztainer 2007 and Silverman et al. 2001). Such impacts may also affect adolescents' concentration or performance at school (Banyard and Cross 2008 and Ismail, Burman, and Ward-Griffin 2007). Adolescent females have reported that the emotional (and physical) health problems they experienced as a result of ADVA persisted beyond

the termination of the abusive relationship (Ismail, Burman, and Ward-Griffin 2007), the length of time during which these effects persisted however, has not been identified.

The impact of ADVA is sometimes reported to vary for males and females (Callahan, Tolman, and Saunders 2003), with females reporting more effects of emotional hurt or fear than males (Barter et al. 2009, Jackson, Cram, and Seymour 2000 and O'Keefe and Treister 1998). A substantial percentage of adolescents (69% females and 94% males) in Barter et al.'s (2009) study who experienced emotional ADVA stated that it had no impact on them compared to that of physical and sexual ADVA. It is possible that adolescents who experience the most extreme forms of violence may view potentially less severe forms of abuse as having less of an impact on them. Barter et al. (2009) suggest the significantly larger percentage of females reporting negative effects as a result of emotional violence supports Stark's (2007) assertion that components of emotional abuse such as coercion and control may be more significant when this abuse is underpinned by other forms of inequality and gendered power within relationship violence. The authors also identify that the potential impact of emotional ADVA may be related to the severity of violence experienced, as those young participants who did state that the emotional abuse they experienced had an impact were more likely to report more forms of emotional violence which occurred with greater regularity than for those young people who reported that they were unaffected (Barter et al. 2009). Although females have been reported as the gender most affected by ADVA, it is not clear to what extent reporting by males is influenced by stereotypical gender norms. It has been asserted for example, that young people appear to perceive a double standard of behaviour associated with male and females' use of physical violence where females' use of physical aggression is considered as less serious and more acceptable, subsequently being laughed off or justified as 'joking around' (Bowen et al. 2013 and Sears et al. 2006). This highlights the need to recognise the nature, context and impact of ADVA in order to understand the dynamics and gender differences of relationships that are abusive and their impact.

A recent large survey explored the impact of ADVA (including online emotional abuse) among 3,277 adolescents (age 14-17; UK and Europe) who had been in a dating relationship (40% of adolescents had experienced some form of online emotional violence; Barter et al. 2015a). The majority of female adolescents reported a negative impact of their experiences of ADVA/TAADVA, while the majority of young men reported an affirmative impact or no effect, although the impact experienced varied across the different types of violence. Negative responses were described as being

upset, scared, embarrassed, unhappy, humiliated, feeling bad about yourself, angry, annoyed, and shocked. Affirmative or no effect responses were defined as feeling loved, good about yourself, wanted, protected, thought it was funny, and no effect. Such findings are fairly consistent with research to have explored the impact of ADVA, such as the effects on young people's psychological/emotional wellbeing which can include feelings of anger, fear, hurt, confusion, sadness, guilt, shame and embarrassment, particularly for females (Barter et al. 2009, Burman and Cartmel 2005, Ismail et al. 2007, Jackson, Cram, and Seymour 2000 and O'Keefe and Treister 1998).

Research exploring the impact of TAADVA specifically is scarce, however it is apparent from many of the accounts in Barter et al.'s (2009) study that new ECTs may facilitate and possibly exacerbate the problem of control in adolescent relationships, in addition to transcending into a wider repertoire of online and offline control strategies. Electronic communication technologies appear to provide more opportunities for abusive, controlling, and coercive dating behaviours to take place in what may be already abusive relationships. It was found within the TAADVA literature that adolescents reported being afraid not to respond to phone calls, text messages, emails or instant messages by their girlfriends/boyfriends because of threats by their partners (Cutbush et al. 2010, Draucker and Martsolf 2010 and Picard 2007). One participant in Barter et al.'s (2009) study described that sometimes females felt unable to discuss the level of surveillance and control being exercised by their partner with him for fear of hurting his feelings. It seems that ECT influences the dynamics of dating violence by redefining the boundaries of romantic relationships in ways that provide a fertile ground for conflict and abuse and through providing opportunities for constant contact through mobile or online communication tools (Draucker and Martsolf 2010). The ability of ECT to provide fast-paced, instant communication from a distance leaves speculation as to whether this leads to a unique type of impact compared to that of psychological/emotional ADVA. Consequently, due to new methods of ECT, geographic and spatial boundaries no longer present a barrier for one to communicate, contact or locate another globally (Hand, Chung, and Peters 2009). For example, ECT enables partners to maintain contact even when a relationship has ended. Therefore, TAADVA may take place while one is in a relationship with an abusive partner and continue once that relationship is ended, contact which would be much more difficult without the availability of ECT.

Electronic communication technology has been found to enhance feelings of jealousy, distrust, insecurity, anxiety, and obsession, potentially representing a unique form of communication

and relationship behaviours with unique impacts (Baker and Carreño 2016, Girlguiding, 2012, Lucero et al. 2014 and Stonard et al. 2015). In addition, ECT is thought to heighten the use of controlling behaviours in relationships, particularly with regards to controlling communications with ‘friends’ of the opposite sex. In the pilot study for this thesis, young female adolescents in particular showed a preoccupation and obsession with a need for communication with a dating partner, their responsiveness to communication, and a partner’s engagement with communication with them (and others) in their romantic relationships (i.e. checking in and telling each other what you have been up to; Stonard et al. 2015; Appendix 11). Participants also discussed feeling anxious, upset, frustrated and/or annoyed when communication was not as frequent as they would have liked or if it was visible that the boyfriend was talking to others and responding to their messages online but not their own. These findings highlight the potential role of attachment characteristics (i.e. female anxiety and male avoidance) in relationships (Hazan and Shaver 1987, 1994) that might be exacerbated with the use of ECT, resulting in obsessive proximity seeking, jealousy and controlling behaviours in romantic relationships.

Concerns have also been expressed that adolescents may not recognise abuse via ECT as serious and may therefore be unlikely to seek help from appropriate adults, as has been found for ADVA. Picard (2007) found that the majority of young people who had been asked to engage in sexual activity (82%), been harassed or embarrassed on a social networking site (78%), or been repeatedly checked up on via email or text messaging (72%) by a dating partner did not tell their parents. The most common reasons reported for this were that the young people did not believe that the behaviours were serious enough to justify telling an adult or because of fears that parents may limit or take away their computer, mobile phone or prevent them from seeing their partner. Only one in 10 adolescent victims of TAADVA sought help in Zweig et al.’s (2013b) study. Forty-eight per cent of adolescents and 53% of parents also believe that computers and mobile phones make abuse easier to conceal from parents (Picard 2007). Worryingly, 18% of parents in Livingstone and Bober’s (2005) survey said that they did not know how to help their child use the Internet safely. Furthermore, 69% of 9-17-year-old daily and weekly users said they minded their parents restricting or monitoring their Internet use and 63% of 12-19 year old Internet users have taken action to hide their online activities from their parents. This all raises concerns of a potential lack of help-seeking for experiences of TAADVA amongst teenagers, as has been found with ADVA (Ashley and Foshee 2005). More longitudinal studies are needed in order to determine the short- and long-term impact of TAADVA and help-seeking.

1.8. Discussion

Dating relationships have been shown to be an integral part of adolescents' lives, being prevalent from early adolescence and progressing in intensity and seriousness throughout this period of maturation. This review of studies reporting the prevalence of ADVA/TAADVA indicates that violence in dating relationships is certainly not a rare occurrence. This highlights the importance of understanding more about the nature, prevalence and impact of ADVA/TAADVA among adolescent couples, as has been widely researched in adult couples with regards to behaviours more commonly referred to as 'domestic violence' or 'intimate partner violence'. Although the issue of ADVA has received increasing academic attention, particularly in the US, few studies have explored this in Europe or more specifically in the UK (Barter et al. 2009, Burman and Cartmel 2005, Fox et al. 2014, Hird 2000 and Schütt 2006). Furthermore, even less research has explored the prevalence and impact of TAADVA.

The number of studies reporting the prevalence of physical ADVA far outnumbers those reporting any other type of abuse. The most prevalent form of ADVA behaviour appears to be psychological/emotional abuse, followed by physical and then sexual violence. A notable amount of violence was reported to be mutual in the limited number of studies to have measured this. Generally, females reported more psychological/emotional and sexual violence victimisation while males reported more physical violence victimisation. Females reported more physical and psychological/emotional violence instigation, while males reported more sexual violence instigation. Limited references to the use of ECT were found in these traditional ADVA studies and only 16 studies were found to investigate or ask about TAADVA directly. Prevalence reports for TAADVA are lower than that reported for psychological/emotional ADVA when studies looked at both contexts of violence. Reports of sexual TAADVA and sexual ADVA were fairly consistent. The prevalence estimates of studies to report on TAADVA are notable, highlighting the relevance of ECT to ADVA as a present concern. Given that TAADVA may be considered as psychologically/emotionally abusive behaviour, it seems reasonable to suggest that current prevalence rates of psychological/emotional ADVA are underestimated. For example, it may be possible that respondents do not report or recognise ECT-based behaviours in a survey if such questions are asked in a face-to-face context. As a result of

inconsistencies in methodologies between prevalence studies in terms of the measures, timeframes, terminology, and samples used, accurate comparisons and generalisations are difficult to make.

Electronic communication technology appears to enable the instigation of ADVA to take place through a new avenue, which has some distinguishing features such as the affordability, detachment and fast-paced instant ability to communicate with others. This has implications for victims of ADVA even when the relationship has ended as ex-partners can often still contact them through electronic means and this may therefore, have a unique impact. It is not clear however, to what extent the new opportunities for abuse provided by ECT create new victims and/or instigators of TAADVA. Importantly, ECTs are not just used within abusive contexts and adolescents report that ECTs are commonly used to establish relationships, keep in contact with their romantic partners, end a relationship, and to reconnect after a break up, signifying the importance of ECTs to teenage romantic relationships (Draucker and Martsolf 2010). More research is needed to investigate the relevance of ECT to abusive and non-abusive behaviours within adolescent dating relationships.

There is some evidence to suggest that the impact of ECT-based abuse is comparable to that of traditional abuse. Evidence has also indicated that ECT may lead to enhanced impacts of technology-assisted bullying, partner violence, and harassment behaviour that may differ depending on the nature of the behaviour and ECT used. Therefore, more research is needed to explore whether the unique features of ECT lead to distinctive impacts as a result of the method through which TAADVA is experienced, in addition to whether the impact of TAADVA differs depending on the individual ECT type used.

In summary, a number of observations and limitations of the existing ADVA/TAADVA literature have been drawn upon in this review to formulate the research questions addressed in this thesis and the development of a new TAADVA questionnaire. However, it is beyond the scope of this thesis to address all of these issues. Specifically, it was argued that: a) a variety of ADVA and TAADVA behaviours and severity of behaviours are measured across different studies that vary in the number of items used and detail; b) inconsistent wording and terminology is used in questions and measures making it difficult to make clear comparisons; c) studies have different recall periods; d) studies investigating TAADVA are sparse and/or limited when compared to that of ADVA, particularity in the UK and EU; e) it is not always distinguished through which ECT adolescents experience or use TAADVA (and when this is considered, it is limited to retrospective accounts

(Draucker and Martsolf 2010) or in the case of Korchmaros et al. (2013), a limited range of ECTs are considered); and f) it is not known to what extent ECT creates new victims and/or instigators of exclusive TAADVA. Importantly, it has been identified that validated ADVA measures do not include abuse that occurs via ECT, despite the identification that ADVA also occurs electronically (Barter et al. 2009, Barter et al. 2015a, Epstein-Ngo et al. 2014, Yahner et al. 2015 and Zweig et al. 2013b).

As no comprehensive set of questions have been established to explore TAADVA and the ECT methods through which this is experienced and/or instigated, findings from this review were used to inform the development of a new set of questions to explore TAADVA. This is so we can get a comprehensive understanding of the nature and prevalence of TAADVA. This new set of questions sought to encompass a range of abusive and controlling behaviours and various ECT methods (see Chapter 3: Methodology for a summary of how this review influenced the development of the new set of questions for this thesis). This chapter therefore informed the development of the first of the three principal research questions forming the basis of this thesis: (1) What is the nature and prevalence of TAADVA?. The literature that informed the development of the other two questions is discussed in Chapter 2.

1.8.1. Limitations and strengths

Literature gathered for this review was obtained primarily through searching bibliographic databases in order to obtain relevant studies. Only those studies that could be accessed and that were published in English, unless stated otherwise were included. Limiting the date restriction of ADVA prevalence literature to the year 2000 means that research published before this date was not included. The decision to not exclude samples which included young adults in addition to adolescents may be viewed as a limitation, however these were included based on the fact that limited data are available for the continent from which these were published. Furthermore, the use of convenience samples means such findings may be limited in terms of generalisability (Cutbush et al. 2012). The nature of self-report data is also subject to bias not only in decisions to take part (Johnson 2006), but also in answering questions about personal involvement in ADVA/TAADVA honestly (Lewis and Fremouw 2001). Nevertheless, the decision to adopt a standardised approach when reviewing ADVA and TAADVA prevalence studies provides a new and insightful analysis of available prevalence statistics allowing some general observations to be made. In particular, the categorisation of studies according to

the type of measure used has enabled observations to be made both within and between the instruments adopted. This chapter also provides an original contribution by exploring the relevance of ECT to ADVA, in addition to reviewing the small, albeit growing literature to report the prevalence of TAADVA.

1.9. Conclusion

In conclusion, while an increasing amount of literature has emerged from the US investigating the prevalence of ADVA in response to the recognition of its potential health consequences, less research has addressed this issue in Europe and specifically the UK. Even less research both nationally and internationally has considered TAADVA and the role of specific ECTs in TAADVA. This is surprising considering the acknowledgement of the use and risks of ECT not only in young people's social lives, but also within the context of their romantic relationships. Inconsistencies in available prevalence data in terms of various measures used makes accurate comparisons and generalisations between studies challenging. Nevertheless, ADVA and TAADVA are prevalent in a substantial number of adolescent romantic relationships based on the studies reviewed. Research indicates that TAADVA often does not occur in isolation from that in the physical realm, although the use of ECTs may be characterised by a number of distinctive features (i.e. instant, constant, public, and personal privacy). It is important therefore to view ADVA as including a continuum of abusive behaviours that may be experienced or instigated in person and/or through ECT. Further research is needed to investigate whether TAADVA creates new victims and/or instigators of a unique form of dating abuse. More empirical and longitudinal studies are similarly needed in order to explore the nature, prevalence and impact of TAADVA both quantitatively and qualitatively in order to inform and target future policy and intervention efforts. The following chapter critically reviews and synthesises the empirical and theoretical literature that has tried to explain ADVA and TAADVA.

Chapter 2: Explaining Adolescent Dating Violence and Abuse and Technology-Assisted Adolescent Dating Violence and Abuse: Risk Factors and Correlates

2.1. Introduction

Chapter 1 comprised a critical review of the changing nature of how Adolescent Dating Violence and Abuse (ADVA) and Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA) has been defined and measured, and of the ADVA and TAADVA prevalence and impact literature. This chapter critically examines the theoretical and empirical research that has attempted to explain ADVA and TAADVA experiences, and factors thought to be important in the pathways, types, and development of ADVA and TAADVA. Specifically this chapter considers the trajectories, typologies, and motives for ADVA, including the role of gender. Following this, a review of longitudinal studies that have identified risk and protective factors for ADVA and cross-sectional studies that have identified correlates of TAADVA is conducted. The findings are examined in the context of relevant theoretical perspectives.

2.2. Trajectories of ADVA

Relative to our understanding of the prevalence of ADVA, less is known about the patterns of adolescents' involvement in ADVA and how this changes over time. According to Straus (2004), dating couples are at greater risk of violent behaviour than are married couples. Girls as young as 13 in Barter et al.'s (2009) study were as likely as those aged 16 to have experienced physical violence from their partners. Recently, research has attempted to account for trajectories of ADVA, exploring the prevalence of ADVA from early to middle and older adolescence. Orpinas et al. (2013) investigated physical ADVA trajectories in a sample of 588, 6-12th grade adolescents and found two trajectories of victimisation for males (low and high) and females (low and increasing); and two instigation trajectories for both males and females (low and increasing). Brooks-Russell, Foshee, and Ennett (2013) also explored trajectories of physical dating violence victimisation in a sample of 2,566 adolescents (grades 8 to 12). The authors identified three trajectories for females: (1) a low/non-

involved class; (2) a moderate class where victimisation increased slightly until the 10th grade and then decreased through the 12th grade; and (3) a high class where victimisation started at a higher level in the 8th grade, increased substantially until the 10th grade, and then decreased until the 12th grade. Two trajectories were found for males: (1) a low/non-involved class; and (2) a victimised class where victimisation increased slightly until the 9th grade, decreased until the 11th grade, and then increased again through the 12th grade. It is interesting that male victimisation increased through the 12th grade while female victimisation decreased, though the reasons for these gender differences are unclear. The authors identified that situational factors (such as alcohol use and anxiety for females, and victimisation by peers for males) may contribute to ADVA victimisation trajectories. Moreover, they suggest that peer victimisation and peer dating violence require further attention in terms of the relationship between victimisation in different arenas (i.e. peer and dating relationships) and vulnerabilities to victimised trajectories. In a five-wave longitudinal study of 1,164 adolescents and young adults (spanning the ages of 13-28), Johnson et al. (2014) examined age-related trajectories of physical ADVA instigation and found that ADVA increased from early-to-middle adolescence (age 13-16) to later adolescence (age 17-20), although the increase was greater for females. At 21-24 years, male instigation of violence decreased, while female instigation peaked at this age. These limited and mixed findings regarding ADVA trajectories suggest that ADVA increases throughout adolescence, with some studies then identifying periods of both decline and further increase throughout later adolescence, depending on gender. Trajectories of TAADVA victimisation and instigation have yet to be explored.

2.3. Typologies of ADVA

Adolescent dating relationships are thought to be more egalitarian (i.e. the extent to which they are represented by inequality in power between partners) than those of adults (Wekerle and Wolfe 1999) and ADVA is reported to consist of milder forms of violence with different sources of disagreement than adult domestic violence (Carlson 1987). Adolescent dating relationships are reported to differ from adult relationships due to them being less likely to be characterised by financial or child dependency, intense involvement with a partner's family, and because they are not legally binding relationships (Carlson 1987). However, adolescent relationships may contain elements of intimacy and perceived importance that make it difficult to withdraw easily from them (Giordano et al. 2010). For

example, in their study of 75 adolescent females (aged 11-17), Girlguiding (2013) found that there was a sense that the adolescents' own and their partner's lives were so closely linked (in terms of becoming close to their boyfriend's family, visiting and staying over regularly, confiding in his mother, or if their boyfriend is close to the girl's own family), that it was easier to stay in relationships than to consider leaving and breaking up. Adolescents may also experience peer and social pressure to participate and remain in dating relationships (Shorey et al. 2008). In terms of TAADVA, some controlling behaviours have even been interpreted as reassuring concerns for infidelity and relationship insecurity or as feeling 'loved' (Barter et al. 2009, Draucker and Martsof 2010 and Girlguiding 2013). This may have implications for the continuation of an abusive or controlling relationship in terms of not recognising abuse, seeking help or ending an abusive relationship. These findings may also have implications when measuring such behaviours, as adolescents' subjective views may influence how they perceive the meaning and impact of ADVA/TAADVA behaviours they experience or use themselves.

Adolescent romantic relationships may be qualitatively different from those of adults in terms of the nature and seriousness of those relationships (Carlson 1987). Consequently, it is not known whether the typologies of violence derived from adult samples are relevant to adolescent populations. Johnson (1995, 2006, 2008) developed a typology of adult Intimate Partner Violence (IPV) that proposes four types of violence based on the context of the violence and/or control and the gender symmetry of the violence. Johnson proposes that each have different causes, patterns of development, and consequences that require different forms of intervention. These include:

- ***Situational Couple Violence (SCV)***: Although the individual (and possibly the partner) is violent, neither the individual nor the partner is violent and controlling. This is represented by violence that is gender symmetric.
- ***Violent Resistance (VR)***: The individual is violent but not controlling, the partner is the violent and controlling one. Mostly female instigators who have been victims of male violence.
- ***Intimate Terrorism (IT)***: The individual is violent and controlling, the partner is not. Mostly female victims of male violence, more frequent violence, and more likely to receive injury.
- ***Mutual Violent Control (MVC)***: The individual and the partner are violent and controlling. This is represented by violence that is gender symmetric.

This terminology has been updated in an unpublished paper (Johnson and Cares 2014, cited in Day and Bowen 2015) whereby IT is now referred to as *Coercive Controlling Violence (CCV)*. Coercive controlling violence has been described as the pattern of emotionally abusive intimidation, coercion and control, coupled with physical violence against partners (Kelly and Johnson 2008), as outlined in Pence and Paymar's (1993) 'Power and Control Wheel'. Mutual violent control has been replaced latterly with *Separation-Instigated Violence (SIV)*, which describes violence that first occurs following separation, but which can be differentiated from continuing violence that also occurs in the context of a separation (Day and Bowen 2015).

Johnson (1995, 2006) examined the IPV literature with representative and agency samples using the Conflict Tactics Scale (CTS) and found that SCV dominated research with general population survey samples (family violence/conflict perspective), whereas IT and VR dominated research conducted with agency samples (feminist perspective). This was taken to suggest that differences across studies in relation to gender symmetry are related to the source of the sample (i.e. general population samples and agency samples). Despite act-based measures being used in both the agency and general surveys reviewed, Johnson (1995) argues that these sampling strategies are heavily biased; the former through its use of biased sampling frames (i.e. shelter/court samples) and the latter through refusals. To further this argument Johnson (2006) notes that couples involved in SCV would be unlikely to become agency clients because victims of such violence are unlikely to seek formal intervention or end an abusive relationship. Female victims of IT are reported to be more likely to leave their partners, leave them more often, to seek their own residence and formal help, or escape to locations that ensure safety (i.e. a refuge; Johnson and Leone 2005 and Leone, Johnson, and Cohen 2007). On the other hand, couples involved in IT would be unlikely to agree to participate in general surveys due to fear of reprisals from the abusive and controlling partner.

To date only two studies have examined the relevance of Johnson's typology to adolescent samples. Zweig et al. (2014b) found that Johnson's (2006) typology of violence was a workable framework to classify a sample of 3,745 adolescents' (7-12th grade) experiences of ADVA in terms of high and low-control violent experiences. For adolescents in violent relationships, the most common type of violence instigated was low-control SCV (86% for females and 80% for males), followed by high-control IT (7% for females and 11% for males), VR (6% for females and 6% for males), and high-control MVC (1% for females and 4% for males; Zweig et al. 2014b). Messinger et al. (2014) also

found that SCV was the most common type of violence instigation among 493 adolescents (aged 14-18), followed by MVC, IT, and VR. The prevalence of SCV, IT and VR was similar to that found in research with adult samples (Johnson 2008), however, MVC was more prevalent among adolescents in Messinger et al.'s (2014) study. Females also reported more SCV in Messinger et al.'s (2014) study than that found in research with adults. These findings suggest that like adult general survey samples, ADVA is most likely to be characterised by low-control violent behaviours in relationships where both partners may be violent, but without the control of one partner over the other or a power imbalance between partners. Although, IT, VR, and MVC were still features of ADVA in these studies, highlighting the presence of abusive relationships characterised by more serious (high) control and gendered power imbalances.

Messinger et al. (2014) went on to develop five categories (MVC and four refined typologies) of ADVA using a relationship-level extension of Johnson's (2006) typology. They proposed that the categories of IT, VR, and SCV should be more clearly refined:

- ***Violent Control-Violent Resistance relationship (VC-VR)***: One partner uses high controlling violence and the second partner uses low controlling violence.
- ***Unilateral Violent Control relationship (UVC)***: One partner uses high controlling violence and the second partner uses non-violence.
- ***Unilateral Situational Violent relationship (USV)***: One partner uses low controlling violence and the other partner uses non-violence
- ***Mutual Situational Violent relationship (MSV)***: Both partners use low controlling violence.

Research has begun to explore the systematic variation in the motivating factors and context of male and female ADVA instigators. For example, Foshee et al. (2007) identified four types of ADVA instigation for females and one for males. These four types for females were distinguished by the motive for violence and whether the boyfriend had a history of abusive behaviour towards her: (1) *patriarchal terrorism response* (violence as an immediate response to violence from the boyfriend who has been historically abusive; stated self-defence and to show they are fed up with the violence as the motives); (2) *anger response* (no history of violence from the boyfriend; stated anger as the motive);

(3) *ethic enforcement* (no history of violence from the boyfriend; stated letting the boyfriend know he had done something wrong as the motive); and (4) *first-time aggression response* (no history of violence from the boyfriend until the current incident to which the female immediately used violence; self-defence and retaliation stated as the motives). Most acts instigated by males were defined as *escalation prevention*, whereby males attempted to prevent the escalation of female physical violence. These types generally reflect that of the low-control couple conflict identified by Johnson (2006), with the exception of the patriarchal terrorism response that reflects what Johnson refers to as VR and Messinger et al. (2014) refer to as VC-VR. It is interesting that motives for female instigation were more varied than the one type identified for males, however no further explanation for this is given. Of note, for males, violence instigation in a playful context was more prevalent than for females (38% vs. 29%). Both males and females identified motives for ADVA instigation related to self-defence.

The motives identified by Foshee et al. (2007) mirror those found in other ADVA and adult IPV studies. In a large-scale review of the literature including samples from university and school populations (37% of the total sample combined), Langhinrichsen-Rohling, McCullars, and Misra (2012) identified that the most common motives for violence instigation were: power/control (76%), using violence as an expression of negative emotion (i.e. anger, 63%), self-defence (61%), retaliation (60%), jealousy (49%), and communication difficulties (48%). No studies have reported on motivations for TAADVA. O’Keefe (1997) found that the most commonly reported reason for males to instigate violence was anger followed by a desire to get control over their partner. The most commonly reported reason for females to instigate violence was anger followed by self-defence. Jealousy was the third main reason for both sexes. Other reasons reported as motives for emotional and physical ADVA instigation for both males and females include the ‘type of person’ (although there is no further description of what this means; and for females more than males), relationship breakup, jealousy, alcohol, anger, getting their own way, retaliation, control, and superiority (Jackson, Cram, and Seymour 2000). Females were more likely to instigate violence because they were angry with a partner while males were violent towards their girlfriends in response to aggression instigated by them. Over a third of adolescents (males and females) reported ADVA within a playful or joking context in Muñoz-Rivas et al.’s (2007) study. Barter et al. (2009) also found motives for female instigation include negative reasons (e.g. to hurt, impress others, jealousy, to get what they wanted, anger, to humiliate, and drinking/drugs), but also as an attempt to defend themselves or within a discourse of mutual ‘play-

fighting' or 'messaging around'. Identified motives for male instigation include 'messaging around', followed by being due to a negative reason (Barter et al. 2009). Finally, Fernández-Fuertes and Fuertes (2010) found a strong link between jealousy and aggression instigation of both verbal-emotional and physical ADVA in their sample of 567, 15-19-year-old Spanish adolescents. Based on these findings there appears to be some considerable overlap in the motives for ADVA instigation for males and females, although desire to get control over their partner was a motivating factor for males only in O'Keefe's (1997) study.

Researchers have also tried to classify types of aggressive events within adolescent romantic relationships. Draucker et al. (2010) identified eight types of aggressive events that occurred in 18-21 year olds' retrospective accounts of their adolescent (age 13-18) experiences of dating violence. These types included aggressive events that were described as: *tumultuous* (both partners typically used aggression in events involving chaos and drama); *controlling* (typically an attempt to dominate one partner by the other without the use of physical violence); *explosive* (typically one-sided aggression involving a severe and sudden act of violence and mostly by males); *scuffling* (including a series of minor aggressive exchanges between partners); *disparaging* (typically one-sided aggression including acts of disapproval and insults or putdowns); *rejecting, ignoring, or disrespecting* (typically one-sided aggression); *violating* (typically female victims of male aggression marked by intrusion and breach of trust); and *threatening* (typically attempts to dominate one partner by the other). Tumultuous and scuffling types of aggression were reported to be mutually (bi-directional) aggressive situations while the other types were primarily uni-directional. The explosive and violating event types were reported to consist of mostly male instigators and female victims, reflecting the IT typology of adult IPV identified by Johnson (1995, 2006) and to the role of gender in ADVA.

Expanding on this, Draucker et al. (2012) explored the types of aggressive relationships in which ADVA occurred with 85 young adults (aged 18-21) providing retrospective accounts of 114 adolescent (aged 13-18) relationships and the regularity and frequency in which this aggression occurred. These types of aggressive relationships included: *recurring aggression* (regular and repeated); *sporadic aggression* (irregular and unpredictable); and *routine aggression* (usual or habitual way of interaction). They also identified whether the aggression was uni- or bi-directional. Seven types of adolescent aggressive relationships were identified as: *turbulent* (recurring aggression that was primarily bi-directional); *maltreating* (recurring aggression that was primarily uni-directional);

brawling (sporadic aggression that was primarily bi-directional); *volatile* (sporadic aggression that was primarily uni-directional); *bickering* (routine aggression that was primarily bi-directional); *deprecating* (routine aggression (i.e. putdowns) that was primarily uni-directional); and *intrusive* (routine aggression (i.e. controlling) that was primarily uni-directional). The participants described aggressive relationships that were uni-directional as abusive whereas bi-directional aggressive relationships were described as fights. Often both partners instigated aggression indicating low-control aggressive behaviour, while uni-directional aggression appears to represent abusive behaviour higher in control and characterised by an imbalance in power. Three of these seven types of aggressive relationships were bi-directional, reflecting SCV, while four were identified to be uni-directional, meaning there is also evidence of IT, UVC and USV in ADVA (Johnson 2006 and Messinger et al. 2014).

The prevalence of mutual ADVA (i.e. when both partners instigate violence in relationships) has been documented (Bossarte, Simon, and Swahn 2008, Fernández-Fuertes and Fuertes 2010, Giordano et al. 2010, O'Leary et al. 2008 and Zweig et al. 2013b). For example, as identified in the review in Chapter 1, 49-79% of adolescents reported mutual physical ADVA and 77-94% reported mutual psychological/emotional ADVA. In studies that found evidence of mutual physical ADVA, males reported more exclusive victimisation while females reported more exclusive instigation (Giordano et al. 2010, O'Leary et al. 2008 and Zweig 2013b). Adolescents who report mutual ADVA have been found to experience and instigate more frequent ADVA than uni-directional victims or instigators (Gray and Foshee 1997). It is important to note that studies reporting mutual ADVA do not always distinguish whether the participant was a victim and/or instigator within the same relationship, or whether they adopted different roles in different relationships, leading to a methodological challenge in terms of identifying the true nature of mutual violence.

Finally, it has been suggested that there may be a gender-specific quality to aggression whereby coercive methods preferred by females may differ from those preferred by males (Wekerle and Wolfe 1998, cited in Wekerle and Wolfe 1999: 441). For example, female coercion may include indirect methods such as enticement, rumour spreading, and threats of withholding sex that is not typically assessed by ADVA measures (Wekerle and Wolfe 1999). This may mean that female violence towards male victims is underreported. Males may also not report abusive behaviour as a result of socially desirable responding (Lewis and Fremouw 2001 and Simon et al. 2010). Consequently, this has implications for the development of measures and prevention efforts in terms of

understanding more about the nature and dynamics of ADVA in order to effectively address the issue (Wekerle and Wolfe 1999). In terms of TAADVA these issues outlined above are even less empirically advanced.

2.3.1. Summary

Based on the literature reviewed, ADVA samples share characteristics with non-clinical adult IPV samples in terms of the types and motives for violence experienced in intimate relationships, with the low-control SCV type most often identified. However, uni-directional violence that is characterised by inequalities in power and the use of controlling behaviour between partners (and usually represented by female victimisation and male instigation) was also identified in the research reviewed. Some literature has also provided an insight into the types of aggressive events experienced by adolescents and the frequency and motives for each event type. Less is known about the typologies of TAADVA and the degree to which this is experienced as uni- or bi-directional violence among adolescent dating partners and whether this is experienced alongside ADVA. It may be reasonable to expect that TAADVA will share similar characteristics to the typologies of ADVA, however unique features of ECT and TAADVA (Baker and Carreño 2016, Girlguiding, 2012 and Lucero et al. 2014) may result in unique motives, experiences, risks and consequences compared to ADVA, thereby meaning different typologies and theories might evolve.

2.4. Explaining ADVA and TAADVA

According to Ward and Beech (2006), a theory explains phenomena, why they exist and why they possess certain properties. They describe an explanation as the application of a theory in an attempt to help understand certain phenomena (i.e. why and how specific events happen and why people behave the way they do). Ward and Hudson (1998, cited in Ward and Beech 2006: 46) distinguished three levels of theory in their framework for classifying sexual offending that include comprehensive theories (Level 1), detailed descriptions of potential influencing risk factors (Level 2) and explanations of the processes of offending (Level 3; Table 2.1). This conceptualisation of levels of theory will be applied to explanations of ADVA/TAADVA in this chapter.

Table 2.1

Levels of theory

Theory Level	Definition
Level 1	Provide comprehensive theories of sexual offending
Level 2	Aim to provide detailed descriptions of the single factors thought to be particularly important in the generation of sexual crimes
Level 3	Explain the process of sexual offending

Currently there exists no single Level 1, comprehensive theory of ADVA (Table 2.1).

Literature has attempted to explain ADVA through the application of trajectories and typologies. This may represent what Ward and Hudson (1998, cited in Ward and Beech 2006: 46) refer to as Level 3 theories in that they attempt to describe the processes of violence in relationships through explanations of violent developmental pathways, the context of violence and level of control, motives, and gender symmetry/asymmetry of ADVA (Section 2.2-2.3). Three of the most influential theoretical perspectives that have been applied to explanations of ADVA are the attachment, feminist and social learning perspectives (Wekerle and Wolfe 1999). These theories represent Level 2 theories in that they attempt to explain single factors thought to be important to ADVA such as socio-cultural and socio-cognitive influences. Such theories are therefore not comprehensive accounts of ADVA/TAADVA and cannot be said to fully adhere to the criteria of a good theory (Hooker 1987 and Newton-Smith 2002, cited in Ward and Beech 2006: 46; Table 2.2).

Table 2.2

Attributes of a good theory

Attribute	Definition
Predictive accuracy, empirical adequacy and scope	The theory can account for existing findings and the range of phenomena requiring explanation
Internal coherence	Refers to whether a theory contains contradictions or logical gaps
External consistency	The theory in question is consistent with other background theories that are currently accepted
Unifying power	The existing theory is drawn together in an innovative way and can account for phenomena from related domains. It unifies aspects of a domain of research that were previously viewed as separate
Fertility or heuristic value	The theory has the ability to lead to new predictions and open up new avenues of inquiry (i.e. its capacity to lead to new and effective interventions)
Simplicity	The theory makes the fewest theoretical assumptions
Explanatory depth	The theory is able to describe deep underlying causes and processes

With limited available alternatives, Ward and Hudson (1998, cited in Ward and Beech 2006: 46) assert that researchers should attempt to integrate the best existing ideas in an area within a new framework known as ‘theory knitting’, in order to identify common and unique features of relevant theories. After reviewing the literature that has attempted to explain the nature and properties of ADVA/TAADVA, it appears that ADVA and TAADVA are not adequately theoretically advanced areas of research, and further investigation and theoretical development is required. Furthermore, as seen in Section 2.2-2.3, adolescents’ experiences of ADVA will vary broadly, depending on the particular situational characteristics, motives for violence, gender, and the context and dynamics of the particular relationship. Therefore, theories need to account for the various types of violence, motives, and contexts in which ADVA and TAADVA occurs (i.e. the heterogeneity of ADVA), as well as a variety of risk factors. To date, the majority of empirical research conducted in relation to ADVA and TAADVA has sought to identify risk and protective factors or correlates that could be interpreted within the context of Level 2 theories. Together, these theories can contribute to explaining ADVA and TAADVA, however the nature of the risk factors applied to these theoretical perspectives needs to be considered.

Kraemer et al. (1997) outline the steps necessary to document risk-factor status in terms of the methodology used to measure the influence of a potential factor or characteristic of a population of interest. In this framework, Kraemer et al. (1997) define eight types of factors or non-factors based on the strength of empirical evidence for the factor (summarised in Table 2.3). Correlates are the weakest factors and causal risk factors are the strongest, and are determined as a result of the methodology used to gather and analyse the data.

Table 2.3

Framework for characterising 'risk' factors

Attribute	Definition
Non-correlate	The factor is not associated with the outcome
Concomitant or Consequence	The factor does not precede the outcome
Correlate	The factor is associated with the outcome. Precedence is not determined
Risk Factor	The factor precedes the outcome however, there is no evidence documenting the stability or variability of the factor within subjects
Fixed Marker	The factor cannot be demonstrated to change or be changed (e.g. race or gender)
Variable Risk Factor	The factor can be demonstrated to change (e.g. age or weight) or be changed (e.g. by intervention). The manipulability or the efficacy or effectiveness of manipulation of a variable risk factor has not been tested
Variable Marker	A variable risk factor that cannot be shown to be manipulable or if manipulated, cannot be shown to change the risk of the outcome
Causal Risk Factor	A variable risk factor that can be shown to be manipulable and when manipulated, can be shown to change the risk of the outcome

The remaining sections of the chapter will review the ADVA risk/protective factor and TAADVA correlate literature in terms of the identified collective areas of influence in order to assess the weight of the empirical evidence, the nature of the 'risk' factor and the relevant theories (i.e. Level 2) where possible. First, an outline and rationale for the methodology of the following review of risk factor studies is provided.

2.4.1. Key search terms

Bibliographic databases (e.g. Academic Search Complete, PsychINFO, and Science Direct) in addition to Google Scholar were searched for peer-reviewed journals and research reports that have examined risk and/or protective factors or correlates of ADVA and TAADVA. Key search terms such as 'adolescent(ce)', 'teen(age)', and 'youth', and 'dating', 'intimate', and 'partner', and 'abuse', 'aggression', and 'violence', were used in conjunction with 'explanations', 'longitudinal', 'nature', 'risk (factors)', 'protective (factors)' and 'promotive (factors)' in order to gather data on the longitudinal risk and protective factors for ADVA. An example of this search technique is provided as follows: 'adolescent' AND 'dating violence' AND 'risk (factors)', AND 'longitudinal'. When broadening the search to capture the relevance of ECT within this context, terms such as 'cyber', 'digital', 'electronic', 'online' and 'technology' were also included interchangeably. Following

exhaustive searches, reference lists were also scanned from gathered literature in order to maximise the collection of as many available studies relevant to the review as possible. A number of academic reports and posters were also obtained which were found to report on the risk factors or correlates of ADVA/TAADVA. A total of 30 studies were found to report on risk/protective factors of ADVA (27 of these from the US and three from Canada) and eight identifying correlates of TAADVA (all from the US).

2.4.2. Inclusion criteria

Inclusion criteria for these studies required that they had been published in English since the year 2000 to ensure the most recent literature was included in the review. Inclusion criteria also required that the samples were of adolescent age (10-18 years; World Health Organisation 2015) at the time when ADVA/TAADVA was assessed. No restrictions were applied to the geographical origin of studies. In accordance with the levels of risk factors identified by Kraemer et al. (1997), the most valid types of risk factor were sought (i.e. 'causal risk factors'). However, only longitudinal studies identifying 'risk factors' (e.g. family influence), 'fixed markers' (e.g. gender and race), and 'variable risk factors' (e.g. personal aggression, attitudes, and substance use) were found for ADVA, meaning causal relationships cannot be confirmed. In these studies, risk/protective factors were characterised by preceding the outcome (i.e. ADVA), and are represented in studies using longitudinal research designs whereby data is collected on at least two occasions. As TAADVA is an emerging field, this criterion was relaxed due to limited literature to have explored this issue. Only factors that Kraemer et al. (1997) describe as 'correlates' were identified for TAADVA, meaning the factor is associated with the outcome, represented in studies using cross-sectional research designs. Due to the nature of cross-sectional methodology, it is not known whether the identified correlates precede the occurrence of TAADVA, occur alongside, or as a consequence of such behaviour. It was deemed important to include all factors identified regardless of the weight of empirical evidence for them. The areas of risk and protection for ADVA and correlates for TAADVA are discussed together.

2.4.3. Risk/protective factors and correlates of ADVA and TAADVA

Using Kraemer et al.'s (1997) criteria, the literature search identified 30 studies for ADVA risk/protective factors, fixed markers, and variable risk factors and eight studies for TAADVA

risk/protective correlates that are summarised in Appendix 2. The 30 longitudinal ADVA studies identified a total of 80 individual factors for ADVA victimisation, instigation and/or involvement that are summarised into 12 broader areas of risk (Table 2.4). Studies with more than two authors have been shorted with 'et al.' following the primary author in Tables 2.4-2.6. Three studies reported on victimisation only, 15 on instigation only, nine on victimisation and instigation separately, and three for involvement only. The adolescents in these studies ranged from age 10-24 years old. For studies that included adolescents over the age of 18 but which also included younger adolescents (age 10-13 years; Smetana, Campione-Barr, and Metzger 2006) the age inclusion criteria was relaxed. The number of waves of data collection ranged from two to eight and the time period ranged from three months to 12 years. The types of violence measured in these studies included physical (28 studies), verbal/emotional/psychological (10 studies) and sexual violence (six studies), threatening behaviour (two studies), and relational aggression (one study). Physical violence is evidently the most common type of ADVA that risk factors were examined for.

Four longitudinal studies reported a total of six protective factors for ADVA victimisation, and/or instigation that are summarised into four broader areas of protection from ADVA (Table 2.5). Three of these reported on instigation only, while one study reported on both victimisation and instigation. The adolescents in these studies ranged from 10-18 years old. The number of waves of data collection ranged from two to five and the time period ranged from six months to eight years. The types of violence measured by these studies included physical (four studies) and emotional violence (one study).

Eight cross-sectional studies reported a total of 28 correlates for TAADVA victimisation, instigation and/or involvement that are summarised into nine broader areas of risk for TAADVA (Table 2.6). One of these studies reported on victimisation only, one on instigation only, four on victimisation and instigation separately, and two for involvement only. The adolescents in these studies ranged from 11-20 years old. TAADVA was broken down to examine non-sexual and sexual TAADVA in two studies (Dick et al. 2014 and Zweig et al. 2013b). Only Epstein-Ngo et al. (2014) reported one protective factor for TAADVA involvement (higher mindfulness). The adolescents in this study ranged from 14-20 years old. The types of TAADVA measured by this study included overall TAADVA.

Table 2.4

Summary of adolescent dating violence and abuse risk factors and studies

Risk Factor (No. studies & factors)	Subcategory	Victimisation	Instigation	Involvement
Peer influence (10; 10)	Friends with experience of dating violence	Arriaga and Foshee (2004)	Arriaga and Foshee (2004)	
	Peer group relational aggression	Ellis et al. (2013)	Ellis et al. (2013)	
	Friends who use dating violence		Foshee et al. (2013)	
	Number of friends using dating violence		Foshee et al. (2010)	
	Friends who are victims of dating violence		Foshee et al. (2001)	
	Having a friend who has been the victim of dating violence	Foshee et al. (2004)		
	Early involvement with anti-social peers		Schnurr and Lohman (2013), Schnurr and Lohman (2008)	
	Increase in involvement with antisocial peers		Schnurr and Lohman (2008)	
	Being victimised by peers	Brooks-Russell et al. (2013)		
	Escalation in peer victimisation			Hipwell et al. (2014)
Family influence (13; 18)	Exposure to parental intimate partner violence	Tschann et al. (2009)	Tschann et al. (2009)	
	Hostility (psychological abuse) in parent marriage		Stocker and Richmond (2007)	
	Mother's experience of domestic violence		Schnurr and Lohman (2013)	
	Exposure to mother-to-father intimate partner violence		Moretti et al. (2014), Temple et al. (2013)	
	Family conflict		Reyes et al. (2014)	
	Experience more family violence from parents		Richards et al. (2014)	
	Harsh parenting practices			Lavoie et al. (2002)
	Initial harsh punishment from parents			Hipwell et al. (2014)
	Increasing harsh punishment from parents			Hipwell et al. (2014)
	Harsh physical punishment from mothers		Schnurr and Lohman (2008)	
	Been hit by an adult with the intent to harm	Foshee et al. (2004)		
	Low levels of hostility with father during early adolescence		Schnurr and Lohman (2008)	
	Mother-child hostility		Schnurr and Lohman (2008)	
Relationship with mother	Cleveland et al. (2003)			

	Low parental monitoring		Schnurr and Lohman (2013)	Lavoie et al. (2002)
	Trauma-related symptoms		Wolfe et al. (2004)	
	Trauma-related anger		Wolfe et al. (2004)	
	Living in stably two-parent home		Schnurr and Lohman (2008)	
Personal aggression (10; 12)	Delinquency		Espelage et al. (2014)	
	Fighting		Cleveland et al. (2003)	
	Been in a physical fight with a peer	Foshee et al. (2004)		
	Aggression against peers		Foshee et al. (2010), Reyes et al. (2014)	
	Peer aggression and rape myth acceptance		Reyes and Foshee (2013)	
	Physical bullying		Foshee et al. (2014)	
	Bully perpetration		Espelage et al. (2014)	
	Antisocial behaviour			Lavoie et al. (2002)
	Hostility in friendships		Stocker and Richmond (2007)	
	Sibling aggression		Espelage et al. (2014)	
	Early adolescent aggressive-oppositional problems at home	Makin-Byrd et al. (2013)	Makin-Byrd et al. (2013)	Makin-Byrd et al. (2013)
	Adolescent aggressive-oppositional problems at school	Makin-Byrd et al. (2013)		
Psychological adjustment & personal competencies (10; 9)	Anxiety	Brooks-Russell et al. (2013)	Foshee, Reyes, and Ennett (2010)	
	Attachment anxiety		Ulloa et al. (2014)	
	High sensitivity to interpersonal rejection		Moretti et al. (2014)	
	Depression / Being depressed	Cleveland et al. (2003), Foshee et al. (2004)	Foshee et al. (2010), McCloskey and Lichter (2003)	
	Depressive symptoms		Schnurr and Lohman (2013), Ulloa et al. (2014)	
	Low self-esteem	Foshee et al. (2004)		
	Externalising behaviour problems		Schnurr and Lohman (2008), Schnurr and Lohman (2013)	
	Anger		Foshee et al. (2010)	
	Relationship conflict (hostility, conflict)			Connelly et al. (2010)

Substance use (9; 8)	Alcohol use	Brooks-Russell et al. (2013)	Foshee et al. (2001), Temple et al. (2013)
	Total drinking behaviours	Cleveland et al. (2003)	
	Frequency of drinking behaviours	Cleveland et al. (2003)	
	Heavy alcohol use		Reyes et al. (2014)
	Drug use	Raiford et al. (2007)	
	Marijuana use		Foshee et al. (2010), Reyes et al. (2014)
	Hard drug use		Reyes et al. (2014), Temple et al. (2013)
	Drug and alcohol use		Schnurr and Lohman (2013), Schnurr and Lohman (2008)
Attitudes (4; 6)	Attitudes accepting of dating violence		Foshee et al. (2001)
	Acceptance of male-to-female dating violence		Lichter and McCloskey (2004)
	Traditional beliefs about the family	Lichter and McCloskey (2004)	Lichter and McCloskey (2004)
	Gendered dating scripts	Lichter and McCloskey (2004)	Lichter and McCloskey (2004)
	Attitudes accepting of aggression		
	Less understanding of healthy relationships	Raiford et al. (2007)	Connelly et al. (2010)
Past dating violence (6; 6)	Prior adolescent dating violence victimisation	Tschann et al. (2009)	Reyes et al. (2014), Tschann et al. (2009)
	Prior adolescent dating violence instigation		Temple et al. (2013)
	Prior individual relational aggression		Ellis et al. (2013)
	Own use of physical aggression (risk for partner's use)		O'leary and Smith Slep (2003)
	Partner's use of physical aggression (risk for own use)		O'leary and Smith Slep (2003)
	Physical dating aggression and rape myth acceptance		Reyes and Foshee (2013)
Educational / intelligence factors (2; 4)	Academic difficulties		Schnurr and Lohman (2013)
	Grade Point Average	Cleveland et al. (2003)	Cleveland et al. (2003)

	School attachment (low levels of) Verbal IQ	Cleveland et al. (2003)	Cleveland et al. (2003)	
Media exposure (3; 2)	Aggressive media usage Viewed X-rated movies	Friedlander et al. (2013) Raiford et al. (2007)	Friedlander et al. (2013)	Connolly et al. (2010)
Sexual attitudes and behaviours (1; 3)	Sex desirability		Cleveland et al. (2003)	
	Relative timing of sex and love		Cleveland et al. (2003)	
	Past sexual behaviour (No. of sexual partners)		Cleveland et al. (2003)	
Social status (1; 1)	High social status		Foshee et al. (2013)	
Demographics (2; 1)	Being of a race other than white	Richards et al. (2014)	Foshee et al. (2001), Richards et al. (2014)	

Table 2.5

Summary of adolescent dating violence and abuse protective factors and studies

Protective Factor (No. of studies; No. of factors)	Subcategory	Victimisation	Instigation
Peer influence (2; 3)	High quality friendships		Foshee et al. (2013)
	Friends with pro-social beliefs		Foshee et al. (2013)
	Increased levels of social support from friends	Richards, Branch, and Ray (2014)	Richards, Branch, and Ray (2014)
Psychological adjustment & personal competencies (1; 1)	Higher empathy		McCloskey and Lichter (2003)
Educational factors (1; 1)	Higher average grades	Richards, Branch, and Ray (2014)	Richards, Branch, and Ray (2014)
Substance use (1; 1)	Marijuana use	-	Foshee, Reyes, and Ennett (2010)

Table 2.6

Summary of technology-assisted adolescent dating violence and abuse risk correlates and studies

Risk Factor (No. of studies; No. of factors)	Subcategory	Victimisation	Instigation	Involvement
Other dating violence experience (8; 13)	Physical ADVA			Epstein-Ngo et al. (2014)
	Physical ADVA victimisation	Cutbush et al. (2010), Zweig et al. (2013b), Zweig et al. (2014a)	Cutbush et al. (2010)	Dick et al. (2014)
	Physical ADVA instigation	Cutbush et al. (2012)	Cutbush et al. (2010), Cutbush et al. (2012), Zweig et al. (2013b)	
	Psychological ADVA victimisation	Cutbush et al. (2010), Cutbush et al. (2012), Zweig et al. (2013b), Zweig et al. (2014a)	Cutbush et al. (2010)	
	Psychological ADVA instigation	Cutbush et al. (2010), Cutbush et al. (2012)	Cutbush et al. (2010), Cutbush et al. (2012), Korchmaros et al. (2013), Zweig et al. (2013b)	
	Sexual coercion victimisation	Zweig et al. (2013b), Zweig et al. (2014a)		
	Sexual coercion instigation		Zweig et al. (2013b)	
	Sexual ADVA victimisation	Cutbush et al. (2010)	Cutbush et al. (2010)	Dick et al. (2014)
	Sexual ADVA instigation		Cutbush et al. (2010)	
	Being a victim of offline ADVA	Hinduja and Patchin (2011)		
	Being an instigator of offline ADVA		Hinduja and Patchin (2011)	
	Stalking victimisation	Cutbush et al. (2010)	Cutbush et al. (2010)	
	Stalking instigation		Cutbush et al. (2010)	
Other sexual aggression experience (2; 3)	Non-partner sexual assault victimisation			Dick et al. (2014)
	Sexual harassment victimisation	Cutbush et al. (2012)		
	Sexual harassment instigation		Cutbush et al. (2012)	
Peer influence (2; 3)	Peer aggression	Cutbush et al. (2010)	Cutbush et al. (2010)	

	Being a victim of cyberbullying	Hinduja and Patchin (2011), Zweig et al. (2013b)	
Psychological adjustment and personal competencies (1; 2)	Having higher levels of depressive symptoms	Zweig et al. (2014a)	
	Having higher levels of anger/hostility	Zweig et al. (2014a)	
Sexual health and behaviours (2; 3)	Contraceptive non-use		Dick et al. (2014)
	Reproductive coercion Having had sexual activity in ones lifetime	Zweig et al. (2014a)	Dick et al. (2014)
Personal aggression (2; 2)	Committing a greater variety of deviant behaviours	Zweig et al. (2014a)	
	Being an instigator of cyberbullying		Zweig et al. (2013b)
Environment (1; 1)	Community violence exposure		Epstein-Ngo et al. (2014)
Other risk behaviour (1; 1)	Sharing passwords with a significant other	Hinduja and Patchin (2011)	
Demographics (2; 1)	Being female	Cutbush et al. (2010), Zweig et al. (2014a)	

Studies measuring ADVA vary in how they define, operationalise, and measure ADVA behaviours. For example, studies vary in the measures or variants of measures used (e.g. CTS, first developed by Straus 1979) and so the wording of questions or type of relationships asked about in such research may differ. Studies may ask about adolescents' current or most recent dating relationships, in addition to 'dates', or ask about historical violence in one's lifetime or within a defined period (i.e. the last six or 12 months). The variety in the length of longitudinal studies, the number of waves and follow-up periods may also influence how comparable findings are in studies using different designs. Furthermore, how studies define and measure the various risk factors has resulted in a vast array of individual risk/protective factors as identified in Tables 2.4-2.5 (ADVA) and Table 2.6 (TAADVA). This has implications when trying to compare and synthesise the current risk literature due to the wide variations in terminology and measurement. Despite such challenges, some general observations and conclusions can be drawn which are subsequently reviewed in Section 2.4.3.2 to Section 2.4.3.16.

These specific risk/protective factors or correlates are summarised into conceptual groups for ADVA (Tables 2.4 and 2.5) and TAADVA (Table 2.6). The discussion of each group of factors for ADVA and TAADVA is combined in order to identify patterns and similarities in the ADVA and TAADVA literature. The literature search led to the identification of 15 groups of risk/protective factors and/or correlates of ADVA/TAADVA in total that will be critically evaluated while applying relevant theoretical perspectives in relation to the empirical evidence found in this review. The studies in these tables are organised according to whether they are risk/protective factors or correlates for victimisation, instigation and/or involvement. The more dominant areas of risk (e.g. peer influence, family influence and personal aggression for ADVA and other dating violence experience for TAADVA) are represented by the larger number of studies to have explored these issues and subsequently informed the research questions for this thesis. These factors can be viewed as consisting of influences at multiple levels including that of the family, peer, individual factors, and broader cultural and structural influences that can be considered within the context of an ecological framework.

2.4.3.1. Ecological framework

The ecological model is used to conceptualise multiple predictors and collective influences into a meaningful framework (Connolly et al. 2010) that can be applied to explanations of ADVA/TAADVA reviewed in this chapter. Bronfenbrenner's (1979, 1994) ecological framework,

which has been reinterpreted in the context of adult domestic violence (Dutton, 1995) and drawn on within the context of risk factors for ADVA (Bowen and Walker 2015) outlines four levels or ‘systems’ in which risk factors for violence can be categorised (Table 2.7). This was used to classify whether the areas of risk factors found in this review influence adolescent development of ADVA at the broader socio-cultural, familial, social, and/or individual level. In addition, observations regarding the number of factors represented by each level of model can be made in order to identify the strongest areas of influence and any similarities or differences between the systems.

Table 2.7
Ecological systems

System	Definition
Macrosystem	<ul style="list-style-type: none"> • Broadest level of analysis^d • Overarching sociocultural influences including belief systems, attitudes, bodies of knowledge^c • Factors that maintain gender inequality, gender role norms and pro-violence societal norms^d
Exosystem	<ul style="list-style-type: none"> • Represents the linkages between the family and the broader culture and/or integration within a community^b • Socio-demographic factors and family structure^c
Microsystem	<ul style="list-style-type: none"> • A pattern of activities, social roles and interpersonal relations^a • Risk factors that arise from the characteristics of families and individuals^b • Includes the attributes, behaviours and attitudes of adolescents, the family and peer group^c
Ontogenetic system (individual)	<ul style="list-style-type: none"> • Risk/protective factors that arise from within the individual as a function of physiology, cognitions, learned behavioural responses or predispositions and emotional responses^b

Note: ^aBronfenbrenner (1994); ^bDutton (1995); ^cConnolly et al. (2010); ^dBowen and Walker (2015)

A summary of how these risk and/or protective factor categories identified in Tables 2.4-2.6 fit within the ecological framework is provided in Table 2.8. As seen in Table 2.8, most of the categories of risk/protective factor can be explained within the context of the microsystem with those in the macro-, exo- and ontogenetic system categories being less prominent. There is some potential overlap, for example: (1) family influence (micro- and exosystem); (2) Psychological Adjustment and Personal Competencies (PAPC; micro- and ontogenetic system); and (3) attitudes (micro- and macrosystem).

Table 2.8

Areas of risk/protector factor in relation to the ecological framework proposed in Table 2.7

System	Risk/protective factor
Macrosystem	Attitudes; Media Exposure; Educational
Exosystem	Family influence; Demographics; Environment; Social status
Microsystem	Peer Influence; Family Influence; Personal aggression; Psychological Adjustment and Personal Competencies; Attitudes; Past/Other ADVA; Sexual Attitudes, Behaviours and Health; Other Sexual Aggression; Other Risk Behaviours (sharing passwords)
Ontogenetic system (individual)	Psychological Adjustment and Personal Competencies; Substance Use; Intelligence

There are a number of potentially collective influencing factors in ADVA/TAADVA including broader social-cultural, socio-cognitive, and individual level elements, although the type of the factor and weight of empirical evidence varies. White (2009) suggests that not only should ADVA be considered within the context of a social ecological model, gender and identity should also be considered at the individual, interactional and structural levels of the social ecology. Gender differences are highlighted where reported in the empirical findings and are considered in terms of the ecological and theoretical context in which they may be applied in order to evaluate how factors such as gender may influence risk and protective factors for ADVA/TAADVA.

2.4.3.2. Peer influence

Peer influence was recognised as a variable risk factor for ADVA in 10 of the 30 studies, identifying a total of 10 individual risk factors for ADVA victimisation, instigation or involvement (Table 2.4). Furthermore, three studies reported two peer influence factors as a correlate for TAADVA victimisation or instigation (Table 2.6). Two studies also reported peer influence as a protective factor for ADVA victimisation or instigation (Table 2.5). Peer influence as a risk factor has been operationalised in instruments measuring friend ADVA and victimisation, association, or involvement with aggressive or anti-social peers and bullying. Protective factors have characterised peer influence based on the role of positive and pro-social relationships with friends.

One theory that has been used to account for peer influence as a risk factor for ADVA/TAADVA is Social Learning Theory (SLT; Bandura 1971, 1973, 1977), and its explanation of the learning and modelling of behaviours through association with significant others. Social learning theory suggests that children learn by observing role models and imitating their behaviour, which is

then reinforced by a rewarding outcome for the particular behaviour. Expanding on SLT, Akers (1998) suggests the probability that people will engage in or imitate deviant behaviour is increased when they differentially associate with others who commit such behaviour, take on and support accepting attitudes towards the behaviour, and have received or anticipate a relatively greater reward for the behaviour through reinforcement. This is particularly relevant to ADVA and TAADVA given that having friends who are involved in ADVA and peer aggression and bullying were substantial risk factors for their own involvement in ADVA and TAADVA (Table 2.4 and Table 2.6).

In addition to the SLT perspective, opportunity perspectives such as lifestyle exposure theory (Hindelang et al. 1978) and assortative mating (i.e. the non-random coupling of individuals based on similarity on one or more characteristics; Buss and Duntley 2011) may also help explain peer influence such as friend dating violence or peer aggression as a risk factor for ADVA. Rhule-Louie and McMahon (2007) describe two types of assortative mating: (1) social homogamy (people partner with others from similar demographic backgrounds or with shared social experiences); and (2) phenotypic preference (individuals choose partners with desired attributes, which often include behaviours and traits that are similar to their own). Clark (2013) suggests that if for example, adolescents engage in delinquency and associate with delinquent peers, they may be more likely to select a partner from that group and therefore be more likely to engage in delinquent behaviours, relationship conflict or be a target for victimisation, as well as being less inclined to report victimisation. This perspective may explain ADVA through association or involvement with others who use and/or condone ADVA. It has also been highlighted in a review by Leen et al. (2013) that interdependence theory (Thibaut and Kelley 1959) may help explain how friend dating violence poses a risk for ADVA due to peer relationships presenting a stronger influence than that of parents in shaping adolescents' expectations about romantic relationships. Peer influence may therefore represent a particularly important component of the 'microsystem' of the ecological model in influencing ADVA/TAADVA.

Studies have reported a range of peer influence risk factors for the instigation of ADVA: friends with experience of dating violence (females only; Arriaga and Foshee 2004), peer group relational aggression (Ellis, Chung-Hall, and Dumas 2013), friends who use ADVA (Foshee et al. 2013), number of friends using ADVA (Foshee, Reyes, and Ennett 2010), friends who are victims of ADVA (females only; Foshee et al. 2001), early and increased involvement with anti-social peers (Schnurr and Lohman 2013 and Schnurr and Lohman 2008). Some of these risk factors, in addition to

others, have also been identified for ADVA victimisation: friends with experience of ADVA (females only; Arriaga and Foshee 2004), peer group relational aggression (Ellis, Chung-Hall, and Dumas 2013), having a friend who has been the victim of ADVA (females only; Foshee et al. 2004), and being victimised by peers (Brooks-Russell, Foshee, and Ennett 2013); and ADVA involvement: escalation in peer victimisation (females only; Hipwell et al. 2014). Specifically looking at sexual violence, Foshee et al. (2004) found that friend physical ADVA victimisation predicted sexual violence victimisation for females. Friend ADVA appears to be a particularly influencing factor for personal ADVA, especially for females in these studies. This provides evidence for explanations of ADVA through the learning, expectation, and modelling of violence within relationships that is normalised within the peer group context. The finding that friend ADVA was a risk factor for sexual violence victimisation for females only, reflects the gender differences found for this type of abuse in the review of prevalence literature (see Chapter 1). Such findings may also lend support to normalised gender inequalities at the broader structural level of influences as described by the ecological model (in Section 2.4.3.1) and feminist theoretical perspectives on IPV and sexual violence (Dobash and Dobash 1979, 1992, Stanko, 2002, Walker 1989, and Yllö and Bograd 1990). These theoretical perspectives are outlined in the following section (Family Influence; Section 2.4.3.3) as such perspectives have traditionally been used to explain ADVA at the familial level. Finally, peer aggression was a correlate for victimisation and instigation of TAADVA (Cutbush et al. 2010), and being a victim of cyberbullying for TAADVA victimisation (Hinduja and Patchin 2011 and Zweig et al. 2013b; Table 2.6). Such peer influences have therefore been identified as risk factors for ADVA and correlates of TAADVA for both victimisation and instigation, providing potential support for the SLT perspective through association with violent and aggressive peers.

Only two studies identified peer-related protective factors for ADVA, however the findings from these studies may also provide support for the SLT and association perspectives. Peer influences such as having high quality friendships (Foshee et al. 2013), having friends with pro-social beliefs (females only; Foshee et al. 2013), and increased levels of social support from friends (females only; Richards, Branch, and Ray 2014) were identified as protective factors against ADVA instigation. Specifically, Richards, Branch, and Ray (2014) identified that increased levels of support from friends at baseline was associated with significantly less physical and emotional dating violence instigation at Time 2, one-year later. Richards, Branch, and Ray (2014) also found that having increased levels of

social support from friends was a protective factor against emotional ADVA victimisation. This is interesting considering the high prevalence of female emotional ADVA identified in Chapter 1 and may show promise for potential intervention strategies. The SLT (Bandura 1971, 1973, 1977) perspective may explain how supportive and pro-social peer relationships are modelled with adolescents' own romantic relationships. However, previous ADVA was not always controlled for, and therefore peer influences may be better described as 'promotive' factors (Sameroff and Fiese 2000) that influence positive outcomes, including reducing the likelihood of violence that may already be present (Bowen and Walker 2015). More research is needed in order to explore how this area influences male adolescents' experiences and use of ADVA.

Peer influence as a risk/protective factor or correlate of ADVA and TAADVA therefore provides some support for the SLT perspective (Bandura 1971, 1973, 1977). This may explain how adolescents learn to accept tolerant norms and attitudes that justify ADVA/TAADVA through involvement and association with others who engage in ADVA or peer aggression. Such behaviours may be reinforced by perceived rewards such as social approval or acceptance, or adhering to the social norm in one's peer group. However, Ellis, Chung-Hall, and Dumas (2013) suggest that associations between relational aggression and dating experiences are likely to be bi-directional at the individual and group levels, leading to difficulties in interpreting the cause and effects of peer group relational aggression. It is also important to remember that SLT is not a theory of ADVA (i.e. Level 2; Ward and Hudson 1998, cited in Ward and Beech 2006: 46), and while it may be applied to explain single peer influence risk factors thought to be associated with ADVA/TAADVA, it is likely that such behaviour is not simply the result of behaviour replication, but a result of this connection in addition to other personal, cognitive, social, cultural, and environmental factors. Differential association also ignores individual differences (Jeffrey 1990), and has been criticised for offering an over-simplistic and deterministic view of the learning process (Coleman and Norris 2000). Nevertheless, peer influences often represent dynamic risk factors, which are thought to be easier to modify through intervention (Leen et al. 2013).

2.4.3.3. Family influence

Family influence was recognised as a risk factor category for ADVA in 13 of the 30 studies, identifying a total of 18 family influence risk factors for ADVA victimisation, instigation, or

involvement (Table 2.4). Family influence as a risk factor for ADVA has been operationalised in instruments measuring parental IPV, harsh parenting practices, parent-child relationships, and child maltreatment. This category was the most common area of risk identified in the ADVA literature in terms of the number of individual risk factors measured and the number of studies reporting it. No TAADVA studies identified these family influence factors as correlates of involvement.

Several theoretical perspectives can be applied to explanations of family influence as a risk factor for ADVA: SLT (Bandura 1971, 1973, 1977), Intergenerational Transmission Theory (IGTT) of violence (Egeland 1993), attachment theory (Bowlby 1969, 1973, 1977, 1979, 1984), feminist and gender role inequality perspectives (Dobash and Dobash 1979, 1992, Stanko 2002, Walby 1990, Walker 1979, 1984, 1989, and Yllö and Bograd 1990), and power and control theories (Straus 1976, 1977 and Straus, Gelles and Steinmetz 1980). These theoretical perspectives offer a framework to explain family influences through the observation and learning of violence and control, in addition to gender roles, as a way of behaving in intimate relationships from parents and the family context, and then through the transmission or replication of such behaviours in adolescents' own romantic relationships. Research conducted into the IGTT of domestic violence has based much of its inquiry on SLT and posits that observation of violence in the family of origin creates attitudes, ideas, and norms about how, when and towards whom aggression is appropriate (Corvo and deLara 2010). Witnessing or directly experiencing violence as a child is reported to place the person at future risk for interpersonal violence due to messages learned about the functional nature of violence, for example, to express oneself, to solve problems, to get what they want, and to control and dominate another (Wekerle and Wolfe 1999).

The attachment theory perspective (Bowlby 1969, 1973, 1977, 1979, 1984) also provides support for family influence as a risk factor for ADVA through its explanation of how family relationships and experiences during childhood influence attachments and subsequent relationships in adolescence and adulthood. The theory posits that early attachments in infancy influence the development of Internal Working Models (IWM) of relationships and that such attitudes and expectations as well as modelled behaviours, form the basis of relationships in later life (Bowlby 1969). Furthermore, although attachment behaviour is especially evident during childhood, it is believed to characterise individuals throughout their life starting from birth (Bowlby 1979). According to Bowlby's attachment theory, in order to develop social competence, a child needs to become fully

engaged in good quality relationships (Howe 2011). From an attachment perspective, adolescence is a transitional period in specific emotional, cognitive and behavioural systems, as primary attachment figure(s) shift from parents to a romantic partner (Allen and Land 1999). Ainsworth (1967) established, and later Ainsworth and colleagues (Ainsworth and Bell 1970 and Ainsworth et al. 1978) developed and investigated four classifications of infant attachment styles including: (1) secure; (2) anxious-ambivalent; (3) anxious-avoidant; and (4) disorganised attachment. Studies have reported considerable stability in attachment patterns from late childhood to early adolescence, particularly for attachment security (Hamilton 2000 and Ammaniti et al. 2000), and from mid to late adolescence (Zimmermann and Becker-Stoll 2002). Such distributions also tend to be similar to that of older adolescent and young adult samples. This is particularly relevant to ADVA given that experiencing family violence and harsh parenting practices were substantial risk factors for personal involvement in ADVA (Table 2.4). If insecure attachment styles are developed as a result of aggressive familial influences during childhood and adolescence, such characteristics and behaviours may be transferred to young people's own romantic relationships.

Bowlby (1984) argues that family violence, including domestic violence and harsh punishment from parents, may have consequences for young people due to the establishment of negative characteristics in patterns of social behaviour during childhood being transmitted throughout the young person's adult life, potentially creating a cycle of violence. Indeed, Steinberg, Davila and Fincham (2006) found that adolescents' negative perceptions of parental conflict were associated with insecure attachment styles with parents, which in turn influenced adolescents' negative marital expectations and romantic experiences. In addition, Dinero et al. (2008) found that warmth and sensitivity in family interactions (age 15-16) were positively related to similar behaviours by romantic partners and to self-reported attachment security (age 25). However these authors suggest that these findings are inconsistent with the theoretical expectation that attachment security will predict the quality of interactions in romantic relationships.

The term 'feminism' describes a collection of different theoretical perspectives that attempt to explain not only the oppression of women by men but also identifies other differences and inequalities in sex roles and other intersecting factors such as race and class (Hopkins-Burke 2005). The feminist perspective views violence in intimate relationships as the consequence of a patriarchal system in society that is represented by male power advantages, dominance, and control over women who are

thereby viewed as subordinate (Dobash and Dobash 1979, 1992, Stanko 2002, Walker 1979, 1984, 1989 and Yllö and Bograd 1990). Violence in intimate relationships is viewed as being a result of such structural influences that define unequal power relations between men as perpetrators and oppressors and women as victims that can be transmitted in the family context. This perspective helps to explain family influence factors (e.g. IPV) as potential risks for ADVA through the transmission of gender inequality and/or patriarchal norms, values and behaviours that are supported, encouraged and maintained through the family context. Within the feminist approach, socially defined gender roles learned within the family are thought to encourage men be 'masculine', to use violence to settle disputes, and to set a foundation of both normative and acceptable behaviours in relationships that may contribute to the reinforcement of male power over women (Oakley 1972, Walby 1990, Walker 1984 and Wareham, Boots and Chavez 2009).

Finally, the power/control theory (Straus 1976, 1977 and Straus, Gelles and Steinmetz 1980) also considers IPV to be learned in the family setting in which violence is used to manage conflicts between family members (i.e. violence between parents or parent-child violence and harsh parental punishment). The family structure is believed to not only teach violence as a way of managing disputes, but also the emotional and moral meaning of violence and familial structures of power and gender inequality (e.g. male authority). Violence is used as a means of legitimising a dominant position within the family when that position of power or authority is threatened. Straus, Gelles and Steinmetz (1980) outline three lessons that a child is taught in terms of using violence: (1) those that love you the most are those that hit you; (2) violence can be used to secure good ends and to establish moral rightness (e.g. the more powerful family member hitting a child or partner to teach morally correct behaviour); and (3) violence and physical force is permissible and justified when other measures have failed. This learning process is believed to pass through multiple generations, similar to that identified in the IGTT of violence. This perspective also contributes to explaining how family and parental violence contribute to ADVA through the learning and normalisation of violent behaviours, coercive tactics, and the associated values that legitimise such behaviour against family members and intimate partners.

Empirical evidence that has identified family influence as a risk factor for ADVA suggests that there are a range of factors relevant to ADVA instigation: exposure to parental IPV (Tschann et al. 2009), hostility in parent marriage (Stocker and Richmond 2007), mother's experience of domestic

violence and maternal IPV (males and Hispanic females only; Schnurr and Lohman 2013), exposure to mother-to-father IPV (females only; Moretti et al. 2014 and Temple et al. 2013), family conflict (Reyes et al. 2014), experience of family violence from parents (female only; Richards, Branch, and Ray 2014), harsh physical punishment from mothers (Hispanic females only), low levels of hostility with father during early adolescence (female only), mother-child hostility (Hispanic females only; Schnurr and Lohman 2008), low parental monitoring (Schnurr and Lohman 2013), trauma-related symptoms (males only) and trauma-related anger (females only; Wolfe et al. 2004). Wolfe et al. (2004) identified that trauma-related symptoms had a significant cross-time effect on predicting incidents of ADVA and suggested that child maltreatment was a distal risk factor for ADVA, and that trauma-related symptoms act as a significant mediator of this relationship. Specifically, for adolescent males, trauma was associated with emotional abuse instigation but for females, trauma-related anger was associated with dating violence. Living in a stable two-parent home was also found to be a risk factor for ADVA instigation for African-American females (Schnurr and Lohman 2008), which may mean that adolescents are more likely to be exposed to parental IPV as a result of both parents being present in the home. The application of SLT's (Bandura 1971, 1973, 1977) identification that the modelling of socially learned behaviour may be more likely when the observer perceives themselves and the model to share similar characteristics (e.g. such as gender), may lend support to the finding that witnessing maternal IPV was associated with female instigation of ADVA (Moretti et al. 2014). For example, females may be more likely to model the behaviour of the mother or in the case of peer influence, female friends. It is therefore likely that some adolescents learn to use violence and controlling behaviour within relationships regardless of gender (Dutton and Nicholls 2005).

Some of these risk factors, in addition to others, have also been identified for ADVA victimisation: exposure to parental IPV (Tschann et al. 2009), having been hit by an adult with the intent to harm (Foshee et al. 2004), and relationship with mother (for females; Cleveland, Herrera, and Stuewig 2003); as well as for ADVA involvement: harsh parenting practices, and low parental monitoring (males only; Lavoie et al. 2002), initial harsh punishment from parents and increasing harsh punishment from parents (females only; Hipwell et al. 2014). Foshee et al. (2004) found that for young adolescents, having been a victim of parental violence (i.e. being hit by an adult with the intention of harm) was the most consistent predictor regardless of gender or outcome. Hipwell et al.'s (2014) results showed that initial level and escalation in harsh punishment (between 10 and 13 years) and

escalation in peer victimisation (10–15 years) predicted physical ADVA involvement. In Lavoie et al.'s (2002) study, harsh parenting practices from ages 10 to 12 years were predictors of ADVA at age 16. A substantial amount of literature has therefore identified family influence-related risk factors for ADVA, which appear to be supported by the social learning, attachment, feminist, gender role inequality and power/control theoretical perspectives. As with peer influence, it is important to remember that these perspectives are not theories of ADVA, and while they may be applied to explain single family influence-related risk factors thought to be associated with ADVA, it is likely that ADVA is not simply the result of behaviour replication or attachment characteristics, but a result of these connections in addition to other situational or individual factors. Moreover, as peer influences were identified as being potentially more important than those within the family context (Leen et al. 2013), the role of attachment in relationships with peers and romantic partners may prove a promising line of future research. However, little is known about how such perspectives apply to TAADVA.

As with the social learning perspective, feminist, gender inequality, and attachment theoretical perspectives also have their limitations. Although the feminist and gender inequality theoretical perspectives help to explain the influence of some family-related risk factors (e.g. parental IPV), males are viewed as the primary instigators of violence and controlling behaviour, and when females are the instigators, such violence is construed as self-defence (Dutton 1994). Other motives have been found for female ADVA, for example, anger, jealousy, substance use, and ethic enforcement (Barter et al. 2009, Foshee et al. 2007 and Jackson, Cram, and Seymour 2000), many of which are shared with the motives for males. Although males have reported control as a motive for ADVA (O'Keefe 1997), they have also found to report violence in self-defence too (Foshee et al. 2007). It has been identified that ADVA and TAADVA is both experienced and instigated by male and female adolescents, however highly controlling relationships and those which include a gendered power imbalance are still present (Draucker et al. 2010 and Messinger et al. 2014), particularly in terms of sexual ADVA/TAADVA (Foshee 1996, Barter et al. 2009, Ringrose et al. 2012 and Wood et al. 2015). Therefore, the feminist perspective may be more applicable to violent relationships that have a gendered nature to them, represented by male violence and control of females, than to other typologies of ADVA.

White (2009) draws on the interactionist approach to highlight how aggression is produced and defined by gender rather than gender producing aggression. For example, male aggression may be seen to define masculinity and female aggression may represent the defending of femininity or the

resistance of male domination. In addition, as women have entered the labour force and gained occupational power, they have become agents of change, signifying a move towards less patriarchal structures and male domination (Hagan, Boehnke and Merkens 2004). Adolescents may learn to use violence and controlling behaviours within relationships as a result of exposure to such norms and behaviours within their family regardless of the gender of the adult or family member who effectively teaches such behaviour and techniques. Gender role theories have also been criticised for being socially deterministic, minimising individual agency in choosing to adhere to social norms and stereotypes, and for being theoretically static and failing to account for social change (Connell 1987).

Attachment theory also has limitations. First, it does not explain why securely attached individuals instigate dating violence (Shorey et al. 2008), meaning other factors may also contribute to ADVA/TAADVA. Second, although attachment in adolescence is thought to be connected to adolescents' functioning in several major social relationships beyond the family and to both psychosocial function and dysfunction (Allen et al. 2007), the nature of adolescent attachment is less well understood (Brown and Wright 2001 and Crittenden 2000) and even more so within the context of ADVA (and TAADVA), despite research showing the potential role of such factors in IPV (Hazen and Shaver 1987, 1994 and Dumas et al. 2008). Third, Bolen (2000) argues that while support has been found to suggest attachment may be predictable, stable and dynamic, attachment should not be viewed as a dyadic process within 'microsystem' and should also be viewed within the context of broader societal and cultural 'macrosystems'.

2.4.3.4. Personal aggression

Personal aggression was recognised as a variable risk factor for ADVA in 10 of the 30 studies, identifying a total of 12 separate risk factors for ADVA victimisation, instigation, or involvement (Table 2.4). Two of eight studies reported two personal aggression factors as a correlate for TAADVA victimisation or instigation. Personal aggression as a risk factor category has been operationalised in instruments measuring various types of delinquent and aggressive behaviours such as fighting, bullying, and aggression against peers, at school and within the home. Personal aggression represented the third most commonly reported risk factor for ADVA, following family and peer influence.

The SLT (Bandura 1971, 1973, 1977), attachment (Bowlby 1969, 1973, 1977, 1979, 1984), feminist and gender inequality (Dobash and Dobash 1979, 1992, Stanko 2002, Walby 1990, Walker

1979, 1984, 1989, and Yllö and Bograd 1990), and power and control theories (Straus 1976, 1977 and Straus, Gelles and Steinmetz 1980) may also explain personal aggression as a risk factor for ADVA as a result of aggression being learnt as a way of behaving in and managing interpersonal relationships. The use and expression of aggression (and masculinity and femininity) within the peer and family context may also be communicated within romantic relationships if such relationship behaviours and gender role expectations have been previously learned and reinforced (Sutherland et al. 1992, Wareham, Boots and Chavez 2009, and Walby 1990). For example, adolescents who engage in or experience aggressive and delinquent behaviours in one aspect of their lives (e.g. the family or peer context) may learn to use such techniques in their own romantic relationships (Connolly et al. 2000 and Fredland 2008). A number of studies have identified a connection between bullying behaviours toward peers and violent behaviours in dating relationships (Connolly et al. 2000, Espelage and Holt 2007, Foshee et al. 2004, Ozer et al. 2004 and Renner and Whitney 2012).

Longitudinal studies have reported a range of personal aggression-related risk factors for the instigation of ADVA: delinquency and sibling aggression (males only) and bullying instigation (Espelage et al. 2014), fighting (males only; Cleveland, Herrera, and Stuewig 2003), aggression against peers (females only; Foshee, Reyes, and Ennett 2010 and Reyes et al. 2014), peer aggression and rape myth acceptance (for males; Reyes and Foshee 2013), physical bullying (Foshee et al. 2014), hostility in friendships (Stocker and Richmond 2007), and early adolescent aggressive-oppositional problems at home (Makin-Byrd et al. 2013). Zweig et al. (2014a) also found that instigating cyberbullying was associated with TAADVA instigation. Specifically, Espelage et al. (2014) identified that for females, high school bullying instigation predicted sexual harassment violence instigation, and verbal/emotional and sexually coercive ADVA instigation. For males, bullying instigation predicted sexual harassment violence instigation, verbal/emotional abuse and physical ADVA instigation, and sibling aggression and self-reported delinquency predicted sexually coercive and verbal/emotional ADVA instigation. Instigation of violence in one context appears to be related to that in another for both genders, although males reported more serious (i.e. greater levels) of sexual ADVA. Reyes and Foshee's (2013) finding that peer aggression and rape myth acceptance were risk factors for sexual ADVA instigation for males reflects the gendered nature to such risk factors supported by the feminist and gender inequality perspectives (Dobash and Dobash 1979, 1992, Stanko 2002, Walby 1990, Walker 1979, 1989, and Yllö and Bograd 1990). Gender and social learning perspectives may explain personal aggression and rape

myth acceptance as risk factors for sexual ADVA through the learning, acceptance, and expectation of violence within relationships as an expression of masculine identity (e.g. male dominance over females; Murnen, Wright, and Kaluzny 2002). Murnen, Wright, and Kaluzny (2002) conducted a meta-analysis on measures of masculine ideology and sexual aggression and found that hostile masculinity, hypermasculinity, views men as dominant over women, and hostility towards women were components of masculine ideology that were most strongly associated with sexual aggression. Rape myth acceptance however, was not as strong a correlate as expected.

Four risk factors were identified for ADVA victimisation: having been in a physical fight with a peer (males only; Foshee et al. 2004), early adolescent aggressive-oppositional problems at home and adolescent aggressive-oppositional problems at school (Makin-Byrd et al. 2013), and ADVA involvement: antisocial behaviour (males only; Lavoie et al. 2002), and early adolescent aggressive-oppositional problems at home (Makin-Byrd et al. 2013). Specifically, in Lavoie et al.'s (2002) study, males who perceived lax monitoring from their parents in their late childhood and reported antisocial behaviour at age 15 years (e.g. delinquency and substance abuse) were at risk of becoming involved in violent dating relationships at age 16 years. In addition, committing a greater variety of deviant behaviours was identified as a correlate for victimisation of TAADVA (Zweig et al. 2014a), and being an instigator of cyberbullying was a correlate for TAADVA instigation (Zweig et al. 2013b). Bullying and physical aggression against peers may present a particular risk for males for both victimisation and instigation, although this was reported for both sexes.

2.4.3.5. Psychological adjustment and personal competencies

The area defined as Psychological Adjustment and Personal Competencies (PAPC) was recognised as a risk factor category for ADVA in 10 of the 30 studies, identifying a total of nine individual variable risk factors for ADVA victimisation, instigation, or involvement (Table 2.4). Only one of the eight studies reported two PAPC-related correlates for TAADVA victimisation (Table 2.6). In addition, one study reported PAPC as a protective factor for ADVA instigation (Table 2.5), and one study reported PAPC as a protective correlate against TAADVA involvement. The PAPC risk factors have been operationalised in instruments measuring various types of psychological, personal, behavioural, and relationship characteristics and while these represent one of the larger areas of risk in

Table 2.4, they are sporadic in terms of the specific factors measured (e.g. various individual PAPC-related factors were identified in the studies reviewed).

Bowlby's (1969, 1973, 1977, 1979, 1984) attachment theory may be applied to account for some of these PAPC factors (e.g. sensitivity to interpersonal rejection, anxious attachment, anxiety, relationship hostility and conflict, depression, anger, and behaviour problems) as risk factors or correlates for ADVA/TAADVA. Bowlby (1984) theorised that poor experience of supportive relationships in childhood may result in fearful relationships in adulthood characterised by anxious and depressive problems. In relationships, this fear and emotional reaction (e.g. anxiety or anger) may occur when a relationship is endangered (i.e. risk of loss) and may have a positive function (e.g. re-establish proximity). Such feelings may also be used in attempts to threaten or coerce a partner psychologically and physically (Bowlby 1984). In a study of 412 college students, Follingstad et al. (2002) identified that while anxious attachment was not directly related to attempts to control one's partner, this relationship was mediated by the person's angry temperament (i.e. anxious attachment was directly related to anger/angry temperament which was related to controlling behaviours). Consequently, these PAPC-related risk factors may collectively contribute to ADVA/TAADVA and be connected to or result from other areas of risk, for example, parental violence and parent-child relationships as outlined by the attachment theories explanation of the development of IWM of relationships.

Hazan and Shaver's (1987) seminal research explored the possibility that romantic love is an attachment process through which affectional bonds in infancy can be translated into terms appropriate in adult love. Hazan and Shaver (1987) explain that more secure lovers described their love experiences as happy and trusting, while avoidant lovers were characterised by a fear of intimacy, and the anxious/ambivalent lover experienced love as involving obsession and extreme sexual attraction and jealousy. From an attachment perspective, when proximity is disrupted, feelings of anxiety, anger or sadness may trigger attachment behaviours designed to re-establish proximity (Hazan and Shaver 1994). Adolescents displaying anxious insecure attachment styles may be more likely to experience and use ADVA as a way of re-establishing proximity or as a result of emotional reactions to disruptions in proximity or relationship maintenance (e.g. jealousy or frustration to, for example, lack of communication). Hazan and Shaver (1994) suggest this might be the root of many dysfunctional behaviours contributing to relationship dissatisfaction and dissolution. In a study by Creasey and

Hesson-McInnis (2001), adolescents ($M = 20$ years old) with more insecure and anxious attachment styles were found to: have more difficulties regulating emotions when distressed with romantic partners; be more likely to report more anger, sadness, and fear during their interactions with romantic partners; report less confidence in emotional regulation during conflicts; and report more difficulties managing conflict. Attachment theory may therefore provide support for PAPC-related risk/protective factors, although this is not without its limitations as identified in Section 2.4.3.3.

Studies have reported a range of PAPC risk factors for the instigation of ADVA: partner attachment anxiety (Ulloa, Martinez-Arongo, and Hokoda 2014), anxiety (White youth; Foshee, Reyes, and Ennett 2010), high sensitivity to interpersonal rejection (females only; Moretti et al. 2014), depression/being depressed (females only; Foshee, Reyes, and Ennett 2010 and McCloskey and Lichter 2003), depressive symptoms (males only; Schnurr and Lohman 2013 and Ulloa, Martinez-Arongo, and Hokoda 2014), externalising behaviour problems (females only; African-American females only; Schnurr and Lohman 2008, 2013) and anger (Black youth; Foshee, Reyes, and Ennett 2010). Some of these risk factors, in addition to others, have also been identified for ADVA victimisation: anxiety (females only; Brooks-Russell, Foshee, and Ennett 2013), depression/being depressed (females only; Cleveland, Herrera, and Stuewig 2003 and (for sexual ADVA) Foshee et al. 2004), low self-esteem (males only; Foshee et al. 2004); and TAADVA victimisation: having higher depressive symptoms and levels of anger/hostility (Zweig et al. 2014a); and ADVA involvement: relationship conflict (e.g. hostility and conflict; Connelly et al. 2010). Depression appears to be a particular risk factor for ADVA victimisation for females and low self-esteem for males in these studies. Depression is also a risk factor for instigation for females and depressive symptoms a risk factor for males. Furthermore, Ulloa, Martinez-Arongo, and Hokoda (2014) found depressive symptoms to partially mediate the relationship between attachment anxiety and ADVA instigation (10 months after). High sensitivity to interpersonal rejection and externalising behaviours appear to be risk factors for instigation for females but not for males. Anxiety over of a partner's responsiveness to communication and engagement in the relationship was also identified as a key theme related to TAADVA instigation for young adolescent females in the pilot study for the research conducted in this thesis (Stonard et al. 2015; Appendix 3).

Two studies identified protective factors for ADVA instigation: higher empathy (McCloskey and Lichter 2003); and TAADVA involvement: higher levels of mindfulness (Epstein-Ngo et al. 2014). McCloskey and Lichter (2003) note that females showed higher empathy scores overall than males, but

empathy served as a buffer against peer and dating aggression equally for both sexes. Epstein-Ngo et al.'s (2014) study of risk and promotive factors for TAADVA was conducted with 210 high-risk primarily African-American adolescents and findings suggest that ADVA/TAADVA interventions should consider strategies to increase mindfulness, although no further explanation regarding how or why are provided by the authors. These findings highlight the role of various PAPC-related risk factors and correlates that may contribute to ADVA, however more research is needed in order to explore whether these are causal risk factors or instead related to a more complex structure of influences. Furthermore, the role of attachment characteristics in TAADVA and ADVA remain relatively unexplored and require further attention.

2.4.3.6. Substance use

The fifth most common risk factor category that was found in nine of the 30 studies, identifying a total of eight individual variable risk factors for ADVA victimisation or instigation, was substance use (Table 2.4). Substance use was also identified as a protective factor for ADVA instigation in one study (Table 2.5). Substance use has been operationalised in instruments measuring various types, frequencies and severities of alcohol and drug use. There are no theories that have accounted for substance use as a risk factor for ADVA, however in their problem behaviour theory, Jessor and Jessor (1975, cited in Foshee et al. 2001: 131) suggest that adolescents who engage in one problem behaviour (e.g. drug use) may be more likely to engage in other problem behaviours such as early sexual intercourse and aggressive behaviours due to influences from collective individual and environmental predictors. However, this does not specifically explain the process of how these factors account for ADVA. As identified in this review (Tables 2.4-2.6), a number of problem behaviours have been identified as risk factors/correlates of ADVA/TAADVA, suggesting that these may be cumulative risk factors.

Studies have reported a range of substance use risk factors for instigation of ADVA: alcohol use (females only; Foshee et al. 2001 and Temple et al. 2013), heavy alcohol use (Reyes et al. 2014), marijuana use (females only; Foshee, Reyes, and Ennett 2010 and Reyes et al. 2014), hard drug use (males only; Reyes et al. 2014 and Temple et al. 2013), and drug and alcohol use (Schnurr and Lohman 2008, 2013); and for victimisation: alcohol use (females only; Brooks-Russell, Foshee, and Ennett 2013), total drinking behaviours and frequency of drinking behaviours (females only; Cleveland,

Herrera, and Stuewig 2003), and drug use (females only; Raiford et al. 2007). Only Raiford et al. (2007) and Foshee, Reyes and Ennett (2001) controlled for baseline dating violence. Specifically, Raiford et al. (2007) noted that after controlling for dating violence, female adolescents who used drugs at baseline were twice as likely to experience ADVA relative to female adolescents who did not report using drugs over the previous year. Foshee, Reyes, and Ennett (2010) also identified that for males, marijuana use was actually a protective factor against ADVA instigation. Some form of alcohol use was a risk factor for victimisation and instigation for males and females; however, drug use was only identified as a risk factor for victimisation for females. With regards to instigation, while drug use was identified as a risk factor for ADVA for both sexes, marijuana was identified as a particular risk factor for instigation for females, while hard drug use was associated with male instigation of ADVA. Alcohol and drug use has also been identified as an adolescent coping strategy for stress (which may include ADVA), in addition to being a symptom of abuse or addiction, blunting emotions, or being motivated by peer approval (Compas et al. 2001). More research is needed in order to explore how substance use, in addition to other problem behaviours, may lead to ADVA/TAADVA for both males and females and whether this is a risk factor, consequence, or both.

2.4.3.7. Attitudes

Attitudes regarding dating violence were recognised as an area of risk for ADVA in four of the 30 studies, identifying a total of six individual variable risk factors for ADVA victimisation, instigation or involvement (Table 2.4). Attitude-related risk factors have been operationalised in instruments measuring acceptance of dating violence, attitudes regarding traditional gender roles, and understanding of healthy relationships.

The social learning (Bandura 1971, 1973, 1977), attachment (Bowlby 1969, 1973, 1977), feminist and gender role/inequality (Connell 1987, Dobash and Dobash 1979, 1992, Oakley 1972, Stanko 2002, Walby 1990, Walker 1979, 1984, 1989 and Yllö and Bograd 1990), and power and control (e.g. Straus 1976, 1977 and Straus, Gelles and Steinmetz 1980) theoretical perspectives may each contribute to explanations of how attitudes lead to ADVA through the observation, learning and modelling of accepting or tolerant attitudes, norms and values towards dating violence and the socialisation and expectation of masculine and feminine gender roles. This theme of ‘attitudes’ as a risk factor strongly interrelates with other areas of risk at the socio-cultural, family, peer and personal levels

of influence in which such attitudes may be taught and reinforced. Sutherland, Cressey, and Luckenbill's (1992) theory of differential association also outlines how gender roles of masculinity and femininity may be developed through interaction with intimate personal groups who teach not only the techniques for deviant behaviour but also the values and attitudes related to the motives for such behaviour (Sutherland, Cressey, and Luckenbill 1992). Próspero (2007) further suggests that boys' perceptions about their social relations to girls may have been learned in their everyday social interactions with their family members, peers, members of the community and the media. Such theoretical perspectives are particularly important in explaining how traditional gender role norms and attitudes that are tolerant towards violence may place adolescents at risk of dating violence. Cross-sectional studies investigating adolescent attitudes towards dating violence have generated some noteworthy findings. Hird (2000) found that physical acts such as slapping, hitting and punching were described as a "normal" part of adolescent relationships, with most girls reporting being hit, held down, slapped, kicked, or punched by their boyfriends.

Longitudinal studies have reported a range of attitude-related influence risk factors for instigation of ADVA: attitudes accepting of dating violence (males only; Foshee et al. 2001), acceptance of male-to-female dating violence, traditional beliefs about the family, and gendered dating scripts (Lichter and McCloskey 2004). Some of these risk factors in addition to others have also been identified for ADVA victimisation: traditional beliefs about the family and gendered dating scripts (Lichter and McCloskey 2004), and having less understanding of healthy relationships (females only; Raiford et al. 2007); and ADVA involvement: attitudes accepting of aggression (Connelly et al. 2010). Specifically, Raiford et al. (2007) noted that relative to female adolescents' not experiencing dating violence, those who did were twice as likely to report less understanding of healthy relationships. Lichter and McCloskey (2004) identified that possessing traditional attitudes of male-female relationships and justifying relationship violence was more important than whether they witnessed marital violence in childhood in predicting ADVA instigation. They also noted that males involved in physical and sexual ADVA were more likely than females to endorse traditional family and gender role beliefs and dating scripts, which lends support to feminist perspectives and explanations of sexual violence. Traditional gender-role attitudes defined by masculine ideology that support male privilege and power in society are reported to encourage, condone and perpetuate sexual violence against women (Murnen, Wright and Kaluzny 2002). From this perspective, males are encouraged to be violent order

to express their 'masculinity', while women are viewed to be sexually passive in order to be 'feminine' (Murnen, Wright and Kaluzny 2002). Information and attitudes about gender inequality and power may be influenced at the local, regional or global levels and learned through broader societal structures as well as within the family context before being translated into adolescents' own romantic relationships and expectations (Connell and Messerschmidt 2005).

The social learning, feminist, gender role/inequality, and attachment theoretical perspectives may therefore contribute to explaining how traditional gender roles and attitudes that are tolerant of ADVA are developed and modelled within adolescents' own romantic relationships. However, other factors such as education about healthy relationships and gender equality, or the presence of positive family and peer relationships may counter such views. In a study based on a sample of 82 adolescents (age 14-17 years) recruited from truancy courts and juvenile probation and victim services, Mueller et al. (2013) found that ADVA instigation at baseline predicted acceptance of violence at follow-up (3 months), after accounting for baseline levels of beliefs. However, beliefs at baseline, did not predict ADVA instigation at follow-up. Therefore, attitudes may play a potential role in ADVA both before and after its onset. Beliefs and attitudes about domestic violence among adolescents and young adults ($n = 891$; $M = 19.4$ years) have also been reported to influence the intent to report abuse and actual reporting behaviour (Sulak, Saxon, and Fearon 2014).

Finally, to reiterate, social learning, feminist and gender inequality, and attachment theories are not theories of ADVA and therefore these can only be applied to these identified risk factors/correlates for ADVA in an attempt to understand how attitudinal-related risk factors may lead to ADVA. Concepts such as masculinity and femininity (and in particular hegemonic masculinity) have also been contested in research (Connell 1987, 1995, Connell and Messerschmidt 2005 and Messerschmidt 1993). These authors have argued against the idea of a one-dimensional notion of male masculinity and dominance as supported by the radical feminist perspective and argue for the recognition of 'multiple masculinities'. Connell (1987, 2005) argues that in reality, most men do not actually fit the image of the tough, dominant and combative masculinity that the ideologies of patriarchy propose and may be subject to power, domination and ridicule by other males and/or women within society. Males may also be taught to be chivalrous (Felson 2002), to protect and respect women such as their wives, partners and mothers (Connell 2005 and Hunnicutt 2009), and to have positive male and female role models in their lives (Connell and Messerschmidt 2005). The assumption that all

men behave violently for the purpose of controlling women ignores the complexity in which gender and masculinity are situationally and differentially accomplished throughout society (Messerschmidt 1993). Furthermore, Connell and Messerschmidt (2005) argue that gender hierarchies are affected by social changes in women's identity and practice, identifying a need for a more complex understanding of gender inequalities that recognises women's agency and the interplay among local, regional and global levels of gender role norms and influences. For example, women may challenge and resist patriarchy (Connell and Messerschmidt 2005), as seen in White's (2009) assertion that females may use violence as a way of defending her femininity. Intersectional feminism that considers aspects of race, class, gender, sexuality, disability is believed to provide a fuller account of intersecting inequalities, oppression and differentials in power and dominance between men and women (Hopkins-Burke 2005, Damant et al. 2008, and George and Stith 2014) but also between men and men, women and men, and women and women. The diverse range of behaviours and the context in which ADVA is experienced is complex, meaning more detailed and comprehensive theories are needed to fully account for the multidimensional nature of ADVA/TAADVA and attitudinal predictors.

2.4.3.8. Past dating violence, other dating violence

Past dating violence was recognised as a risk factor category for ADVA in six of the 30 studies, identifying a total of six individual risk factors for ADVA victimisation, instigation or involvement (Table 2.4). All eight TAADVA studies also reported other dating violence experience as a correlate for TAADVA victimisation, instigation or involvement (Table 2.6), identifying 13 individual types of correlates. Past and 'other' dating violence as a risk factor/correlate has been operationalised in instruments measuring prior victimisation, instigation or involvement in dating violence. In the case of TAADVA, this is broken down into physical, psychological, and sexual violence/coercion.

Four theories that may be used to account for past or other dating violence as a risk factor for ADVA and TAADVA are the SLT (Bandura 1972, 1973, 1977), attachment (Bowlby 1969, 1973, 1977, 1979, 1984), feminist and gender inequality (Dobash and Dobash 1979, 1992, Stanko 2002, Walby 1990, Walker 1979, 1984, 1989 and Yllö and Bograd 1990), and power and control theories (Straus 1976, 1977 and Straus, Gelles and Steinmetz 1980). These theoretical perspectives may help to explain how prior or other dating violence as a risk factor or correlate, leads to or is associated with

future or other types of ADVA/TAADVA. For example, earlier learned foundations of understanding of what a relationship should be like (i.e. experiencing or using conflict, power, violence, and coercive tactics to communicate, negotiate, and manage conflict in relationships) forms the basis of behavioural expectations in future relationships. Such findings may also provide support for the attachment perspective view that unhealthy relationships or relationships that involve violence may be a result of poorly matched attachment characteristics (Hazan and Shaver 1994).

Studies have reported a range of past ADVA risk factors for instigation of ADVA; including prior ADVA victimisation (Reyes et al. 2014, Tschann et al. 2009 and Ulloa, Martinez-Arango, and Hokoda 2014), prior ADVA instigation (Temple et al. 2013), prior individual relational aggression (Ellis, Chung-Hall, and Dumas 2013), own use of physical aggression (risk for partner's use) and partner's use of aggression (risk for own use; O'Leary and Smith Slep 2003), and physical ADVA (and rape myth acceptance; for males; Reyes and Foshee 2013); and to a lesser extent, victimisation of ADVA: prior ADVA victimisation (Tschann et al. 2009 and Ulloa, Martinez-Arango, and Hokoda 2014). Although not identified as a specific risk factor in their primary investigation, Foshee et al. (2004) also identified that young adolescents already experiencing mild forms of ADVA were almost two-and-a-half times as likely than their non-victimised peers to become victims of serious physical ADVA and 1.3 times more likely to become victims of sexual ADVA. The finding that both past physical ADVA and rape myth acceptance (Reyes and Foshee 2013) were associated with sexual ADVA instigation for males, again provides support for the feminist perspective if these behaviours are underpinned by values of male power and domination over females (Dobash and Dobash 1979, 1992, Stanko 2002, Walker 1989 and Yllö and Bograd 1990). Sociocultural models incorporating patriarchal masculine ideology (i.e. masculine gender roles) and situational factors to sexual aggression are thought to be most promising in predicting sexual violence (Murnen, Wright and Kaluzny 2002).

Other ADVA experience has also been reported as a correlate for TAADVA instigation: physical ADVA victimisation (Cutbush et al. 2010), physical ADVA instigation (Cutbush et al. 2010, Cutbush et al. 2012 and Zweig et al. 2013b), psychological ADVA victimisation (Cutbush et al. 2010), psychological ADVA instigation (Cutbush et al. 2010, Cutbush et al. 2012, Korchmaros et al. 2013 and Zweig et al. 2013b), sexual coercion instigation (Zweig et al. 2013b), sexual ADVA victimisation (Cutbush et al. 2010), sexual ADVA instigation (Cutbush et al. 2010), being an instigator of offline ADVA (Hinduja and Patchin 2011), stalking victimisation (Cutbush et al. 2010); and stalking

instigation (Cutbush et al. 2010); and TAADVA victimisation: physical ADVA victimisation (Cutbush et al. 2010, Zweig et al. 2013b and Zweig et al. 2014a), physical ADVA instigation (Cutbush et al. 2012), psychological ADVA victimisation (Cutbush et al. 2010, Cutbush et al. 2012, Zweig et al. 2013b and Zweig et al. 2014a), psychological ADVA instigation (Cutbush et al. 2010 and Cutbush et al. 2012), sexual coercion victimisation (Zweig et al. 2013b and Zweig et al. 2014a), sexual ADVA victimisation (Cutbush et al. 2010), being a victim of offline ADVA (Hinduja and Patchin, 2011), and stalking victimisation (Cutbush et al. 2010); and finally TAADVA involvement: physical ADVA (Epstein-Ngo et al. 2014), physical ADVA victimisation, and sexual ADVA victimisation (Dick et al. 2014).

Notably, in Zweig et al.'s (2013b) study, those who instigated sexual TAADVA reported rates of instigation of sexual coercion 17 times higher than that for non-instigators of sexual TAADVA (34% vs. 2%) and those who experienced sexual TAADVA reported rates of sexual coercion seven times that for non-victims of sexual TAADVA (55% vs. 8%). Epstein-Ngo et al. (2014) reported that a one-unit increase in physical ADVA frequency was associated with a 20% increase in TAADVA. Sixty-nine per cent of adolescents reporting sexual TAADVA also reported non-sexual TAADVA victimisation in Dick et al.'s (2014) study. Sexual TAADVA was also related to sexual ADVA victimisation (18% vs. 6%), and sexual violence victimisation from a non-partner (36% vs. 10%). Non-sexual TAADVA was related to physical ADVA victimisation (14% vs. 2%), sexual ADVA victimisation (14% vs. 4%), and non-partner sexual violence (22% vs. 9%; Dick et al. 2014).

Prior involvement in dating violence was therefore identified as a risk factor for further ADVA/TAADVA in these studies (for instigation in particular), signifying the importance of intervention for adolescents already involved in abusive relationships as well as for those at risk for ADVA. Various types of traditional ADVA (physical, psychological, sexual, and stalking) were identified as correlates for TAADVA victimisation, instigation or involvement. These studies suggest that ADVA and TAADVA are not experienced in isolation from each other and that non-sexual and sexual forms of ADVA/TAADVA may also be linked. Considering the developmental and influential period of adolescence, these findings show concern for the acceptance of relationships that include violence and a risk of such behaviours and norms being carried through to more serious adult romantic relationships (Smith, White, and Holland, 2003).

2.4.3.9. Media exposure

Media exposure was recognised as a risk factor category for ADVA in three of the 30 studies, identifying a total of two individual risk factors for ADVA victimisation, instigation, or involvement (Table 2.4). Media exposure as a risk factor has been operationalised in instruments measuring aggressive media usage and having viewed X-rated movies. The SLT perspective (Bandura 1971, 1973, 1977) and feminist and gender inequality perspectives (Dobash and Dobash 1979, 1992, Stanko 2002, Walby 1990, Walker 1989, and Yllö and Bograd 1990) may be used to explain the influence of media exposure as a risk factor for ADVA. Aggressive behaviours may be learnt and modelled from influences such as aggressive media exposure, potentially contributing to the use or acceptance of violence among adolescents who view such materials. For example, studies have reported aggressive media usage, mediated by violence-tolerant attitudes as a risk factor for ADVA victimisation (Friedlander et al. 2013 and Raiford et al. 2007), instigation (Friedlander et al. 2013), and involvement (Connolly et al. 2010). Raiford et al. (2007) considered X-rated movies in the context of physical exposure of negative interpersonal power dynamics between men and women and found that, relative to female adolescents who have not experienced ADVA, those who did were almost twice as likely to have viewed X-rated movies. Friedlander et al. (2013) suggest that their findings provide strong evidence of the negative long-term effect of exposure to multiple forms of aggressive media and that this effect occurs, at least in part, through the influence of attitudes tolerant of violence. Manganello (2008) has similarly identified the potential role of media exposure in influencing teenage attitudes, knowledge and behaviours with regards to ADVA by providing role models and examples of how to act in dating relationships. In addition, pornography may help to construct and support attitudes and behaviours that are consistent with the patriarchal structure (Murnen, Wright and Kaluzny 2002), and in which adolescents learn gendered and sexualised expectations of behaviours in romantic and sexual relationships (Ringrose et al. 2012).

2.4.3.10. Sexual attitudes, behaviours and health

Sexual attitudes and behaviours were recognised as a risk factor category for ADVA in one of the 30 studies, identifying a total of three individual risk factors for ADVA instigation (Table 2.4). Two of the eight studies also reported sexual health and behaviours as a correlate for TAADVA victimisation or involvement (Table 2.6). This type of factor has been operationalised in instruments

measuring past sexual behaviour, non-use of contraception and reproductive coercion. As with broader attitudes regarding dating violence and traditional gender roles, the SLT (Bandaura, 1971, 1973, 1977), feminist and gender inequality perspectives (Dobash and Dobash 1979, 1992, Stanko 2002, Walby 1990, Walker 1989 and Yllö and Bograd 1990) may each be applied to account for sexual attitudes and gendered sexually coercive health risk behaviours as risk factors for ADVA/TAADVA. Such theoretical perspectives and ideologies that support male authority, dominance and entitlement to violence, control and sexual intimacy towards passive females may help explain how sexual attitudes and behaviours with a particular gendered nature to them (e.g. female reproductive coercion) contribute to ADVA. In addition, problem behaviour theory may also be indirectly applied here in terms of the collective risks or influences of problem behaviours (Jessor and Jessor 1975, cited in Foshee et al. 2001: 131).

Cleveland, Herrera, and Stuewig (2003) have reported a range of sexual attitudes and behaviours that are risk factors for instigation of ADVA for males: sex desirability, relative timing of sex and love and past sexual behaviour (i.e. number of sexual partners). Having had sexual activity in one's lifetime was also identified as a correlate for TAADVA victimisation (Zweig et al. 2014a), and contraceptive non-use and reproductive coercion were identified as a correlates for TAADVA involvement for females (Dick et al. 2014). Dick et al. (2014) noted that females exposed to TAADVA were two to four times more likely to not use contraception and three to six times more likely to have experienced recent reproductive coercion compared to unexposed females. Sexual attitudes, behaviours and health may therefore present one of a number of predictors that together, may increase adolescents' likelihood of ADVA/TAADVA. However, as with all identified risk factors that are not causal, it is likely that this is one of a number of problem behaviours or influences in adolescents' lives that may place them at increased likelihood of ADVA/TAADVA.

2.4.3.11. Demographics

Demographic factors were recognised as a risk factor category for ADVA in two of the 30 studies, identifying one individual risk factor (or 'fixed marker') for ADVA victimisation or instigation (Table 2.4). Two of the eight studies also reported demographics as a correlate of TAADVA victimisation (Table 2.6). There are no theories that have accounted for demographic characteristics as risk factors for ADVA/TAADVA, however studies have identified that being of a race other than

White was a fixed marker for ADVA instigation (Foshee et al. 2001 and Richards, Branch, and Ray 2014) and victimisation (Richards, Branch, and Ray 2014) for females. Being female was also a correlate for TAADVA victimisation (Cutbush et al. 2010 and Zweig et al. 2014a).

2.4.3.12. Education and intelligence

Educational and intelligence factors were recognised as a risk factor category for ADVA in two of the 30 studies, identifying four individual risk factors for ADVA victimisation or instigation (Table 2.4). One study also reported an educational factor as a protective factor against ADVA victimisation and instigation (Table 2.5). Educational and intelligence factors have been operationalised in studies measuring adolescents' school attachment, average grades, and verbal IQ. No theories have accounted for education and intelligence as risk factors for ADVA, however studies have reported education and intelligence risk factors for instigation of ADVA: academic difficulties (Schnurr and Lohman 2013), lower grade point average and verbal IQ (for males; Cleveland, Herrera, and Stuewig 2003); and ADVA victimisation: lower grade point average, and low levels of school attachment (for females; Cleveland, Herrera, and Stuewig 2003). Only one study identified educational factors to be a protective factor for instigation and victimisation of ADVA and that was having higher average grades (for females; Richards, Branch, and Ray 2014). Although this category of risk was not prominent in the studies reviewed, educational factors such as average school grades and school attachment were suggested to be both risk and protective factors for ADVA, highlighting the role of both positive and negative educational influences in ADVA. More research is needed in order to understand how such factors may lead to an increased or decreased likelihood of ADVA.

2.4.3.13. Other sexual aggression

Other sexual aggression experience was also recognised as a correlate for TAADVA in two of the eight studies, identifying a total of three individual correlates of TAADVA victimisation, instigation or involvement (see Table 2.6). In these studies, sexual harassment instigation was identified as a correlate for TAADVA instigation, sexual harassment victimisation for TAADVA victimisation (Cutbush et al. 2012), and non-partner sexual assault victimisation for TAADVA involvement (Dick et al. 2014). As this area of risk was identified as a correlate only, theories have not been applied here to the extent of the other factors. However, the social learning perspective (Bandura

1971, 1973, 1977) may also be relevant here if it experiences of sexual harassment and TAADVA are experienced and accepted as normalised behaviour within adolescence.

2.4.3.14. Environment

One study reported an environmental factor as a correlate for TAADVA involvement (Table 2.6) and operationalised this correlate as community violence exposure (Epstein-Ngo et al. 2014). Community violence exposure as a correlate of TAADVA may be explained with the application of SLT (Bandura 1971, 1973, 1977) through the influence and modelling of aggressive behaviours or values learnt within the community in adolescents' own romantic relationships. Epstein-Ngo et al. (2014) noted that a one-unit increase in community violence exposure frequency was associated with an 18% increase in TAADVA. Due to limited research that has investigated environmental factors as risk factors for ADVA/TAADVA, it is difficult to draw firm conclusions from these findings.

2.4.3.15. Social status

Social status was recognised as a risk factor for ADVA in only one of the 30 studies, identifying one individual risk factor for ADVA instigation (Table 2.4). There are no theories that have accounted for social status as a risk factor for ADVA, however being high in social status was reported as a risk factor for instigation and for females only (Foshee et al. 2013). Due to limited research for this factor it is difficult to conclude its significance.

2.4.3.16. Other risk behaviour: Sharing passwords

Other risk behaviour (i.e. sharing passwords with a significant other) was recognised as a correlate for TAADVA in one of the eight studies (Hinduja and Patchin 2011), identifying one individual correlate for TAADVA victimisation (Table 2.6). This might suggest that adolescents who freely share their passwords place themselves at increased likelihood of TAADVA by leaving their personal accounts available to intrusion by a partner for abusive or surveillance purposes. Although self-control theory (Gottfredson and Hirschi 1990) has not been applied to explanations of ADVA, Ngo and Paternoster (2011) found that low-levels of self-control were related to increased likelihood of experiencing online harassment from a stranger or non-stranger. The free sharing of information online and availability of personal details may allow a partner to access the other's social networking accounts

or mobile phones covertly which may lead to risks that information could be used in a negative way (i.e. online harassment) and possibly in the context of TAADVA.

2.4.3.17. Methodological factors relevant to the interpretation of the results

Several risk and protective factors for ADVA and correlates for TAADVA have been identified with variations in how these factors are defined and measured. The broad range of individual risk and protective factors have been summarised into categories of risk to provide an overview of factors relevant to ADVA and TAADVA. The variations in ways risk factors/correlates are defined and measured, which for many essentially measure variants of the same behaviour, makes firm conclusions difficult to ascertain. Some broad conclusions can be made from the findings of this review, however studies present a scattered variety of influences, with some factors (e.g. peer aggression, peer ADVA, family IPV exposure, personal aggression, and past ADVA) becoming more prominent in the literature while other factors are more sporadic (e.g. PASC-related factors), but collectively and theoretically prominent. Furthermore, variations in study length, number of data collection waves, ages of participants, the type of samples, and factors that are controlled for may influence research findings and their comparability. There is a clear need for more longitudinal studies and for a standard risk instrument in order to make further research more comparable. There is a particular lack of longitudinal and cross-sectional research for TAADVA and a lack of risk research on ADVA and TAADVA in the UK. More standardised methods and measures would provide opportunities to make comparisons between studies in order to understand what and how risk/protective factors leave adolescents at increased or decreased likelihood of becoming involved in ADVA/TAADVA.

Ideally, studies should follow young people from early adolescence or childhood if possible, in order to control for as many factors as possible (including previous dating violence), in order to assess risk at various life points, thereby improving reliability and conclusiveness of future research findings. However, some of these factors would be practically and ethically challenging to study and follow over a long period of time without intervention. A lack of research identifying causal risk factors (Kraemer et al. 1997) leads to questions in terms of the validity of these findings due to the methodologies not directly measuring cause-effect relationships (Mann 2003). These risk/protective factors or correlates identified in this chapter can only be explained with the application of Level 2 theories of behaviour (Ward and Hudson 1998, cited in Ward and Beech 2006: 46), through potential

explanations of how these single risk and protective factors may contribute to ADVA/TAADVA victimisation and/or instigation, rather than providing comprehensive explanations. Therefore, ADVA and even more so TAADVA, is not theoretically advanced, and while many individual risk factors have been identified, no coherent theoretical framework currently exists.

2.5. Discussion

The findings from this chapter highlight that ADVA and TAADVA consist of a diverse range of abusive and controlling behaviours. Furthermore, relationships may vary in terms of the use of controlling behaviours, type of violence (physical, psychological, and sexual) and whether the violence is uni- or bi-directional and gender symmetric or not. This review of risk and protective factors/correlates for ADVA/TAADVA identified an extensive range of factors, particularly for ADVA. Many of the risk factors were reported for both victimisation and instigation of ADVA and TAADVA. Studies reporting risk factors for instigation are much more prevalent in the literature. These factors have been organised into collective areas of risk, protection or association, in order to attempt to critically synthesise their significance in relation to the empirical evidence and applicable available theories. An absence of longitudinal and a lack of cross-sectional studies that have investigated risk and protective factors for TAADVA signify a need for future research in order to more accurately explain ADVA and TAADVA and their associated risks and to establish cause-and-effect relationships. Further research is also needed to explore gender differences in risk factors for ADVA and TAADVA, because while many similarities are found in this review, some notable differences were apparent (e.g. for risk areas such as substance use, peer influences, and certain PAPC and educational factors), and gender differences are not always reported with regards to TAADVA.

In terms of ADVA, family influence (13 studies) and peer influence (11 studies) were the most prominent risk factors identified in the review for both victimisation and instigation. Although, peer influence was reported to be more significant in adolescents' own involvement in ADVA due to peers reportedly playing a more influencing role than parents during adolescence (Leen et al. 2013). Following this, PAPC (10 studies), personal aggression (nine studies), and substance use (nine studies) were the next most prevalent risk factors for ADVA. Bowen and Walker (2015: 55) note that risk and protective factors identified at the individual (i.e. ontogenetic) level may have the strongest relationship with ADVA due to their developmental proximity. Other ADVA victimisation, instigation, or

involvement was a common correlate for both victimisation and instigation of TAADVA. Peer influence (two studies) was the most commonly reported protective factor for ADVA, although limited research is available on protective factors. These findings highlight implications in terms of a need to take into consideration the multiple factors (e.g. peer, familial, personal, attitudinal and PAPC) that may be relevant to ADVA and TAADVA in order to inform both prevention (i.e. through education) and intervention (i.e. through support services).

Throughout this review, ADVA/TAADVA and the associated risk factors/correlates have been primarily explained using the social learning, feminist and gender role, and attachment theoretical perspectives, which each have their strengths and growing empirical evidence to support them. However, they each have their weaknesses and at the moment no comprehensive theory of ADVA/TAADVA exists. These are not specific theories of ADVA and therefore cannot provide a comprehensive account (e.g. Level 1 theories; Ward and Hudson 1998, cited in Ward and Beech 2006: 46) for how these risks or correlates may explain ADVA/TAADVA, but rather how such factors may be potential influences in adolescents' acceptance, experience and/or use of ADVA/TAADVA by identifying characteristics of those involved in ADVA/TAADVA. Furthermore, the extent to which these factors and theories have been applied to TAADVA has been limited. In order to progress towards a more comprehensive understanding of ADVA and TAADVA, further research is needed to explore whether factors and theories found to be associated with ADVA are also associated with TAADVA, and the potential role of available theories in combination in explaining such behaviour in order to build on this to make steps towards developing a competent comprehensive theory of ADVA/TAADVA. Despite their differences, there are similarities between these three theoretical perspectives that have been applied to explanations of ADVA that can work in sync in order to provide a more detailed account of ADVA/TAADVA.

Social learning theory offers an overarching socio-cultural explanation of the learning process of violent behaviours, attitudes, relationship functioning, and societal expectations of gender, and has widely been researched and applied to ADVA (particularly in terms of influences such as peer ADVA, family violence and attitudes). The feminist perspectives on the other hand specifically identify how the broader, structural, socio-cultural prescriptions of gender, inequality, patriarchy, oppression, power, and dominance are learned. The attachment theoretical perspective provides an explanation of how individual socio-cognitive factors such as attachment style characteristics (e.g. security, anxiety and

avoidance) developed in the family during childhood may influence violence in relationships as a result of the development of IWM of relationship functioning. For example, family violence and problematic parent-child relationships are viewed as resulting in insecure attachment style characteristics. The attachment perspective also helps to explain several PAPC and behaviours (e.g. relationship hostility and conflict, depression, self-esteem, anxiety, sensitivity to interpersonal rejection, and behaviour problems) related to relationship functioning. The combination of all three theoretical perspectives together help to explain how violence in relationships becomes learned, favoured, tolerated, accepted and even expected as a way of communicating and negotiating intimacy, sexuality, gender-roles, conflict and power, at all levels of the ecological model. In addition, these perspectives each attempt to explain the motives, techniques, and sources of reinforcement (i.e. power, control, establishing proximity in relationships, social approval, or defending gender; Sellers, Cochran and Winfree 2003) shaped within the familial, peer, and cultural contexts during childhood and adolescence. Referring back to the attributes of a good theory (Hooker 1987 and Newton-Smith 2002, cited in Ward and Beech 2006: 46), a combination of these theoretical perspectives outlined in this review shows potential for accounting for multiple existing findings. This also shows opportunity for integration (i.e. attempts to adhere to the attribute of ‘unifying power’) of these theories in order to account for the various influences in ADVA/TAADVA in an innovative way (e.g. the role of socio-cultural influences as well as socio-cognitive influences, individual, and situational factors of the ecological model). It is beyond the remit of this thesis to consider all of these issues; however there appears to be a gap in the literature regarding the role of attachment style characteristics in ADVA and TAADVA and the role of peer (social learning perspective) and gender inequality (feminist perspective) influences in TAADVA.

The role of attachment theory in adolescent relationships and ADVA/TAADVA is considerably less empirically and theoretically advanced compared to the SLT and feminist perspectives. Attachment theory appears to account for several family influence, personal, PAPC-related, and attitudinal factors found to be associated with ADVA/TAADVA. However, there has been little research on adolescent attachment theory, attachment characteristics and its role in ADVA or TAADVA directly, despite having been identified and researched within the context of adult IPV, being identified as a potential issue in this review, and being a key finding in the pilot study examining TAADVA for this thesis (Stonard et al. 2015; Appendix 3). Furthermore, it is not known how attachments to different groups (i.e. parents, peers, and romantic partners) differ and their role in

ADVA/TAADVA. For example, the finding that peer influences were particularly important (compared to family influences) may suggest that peer attachments play an equally significant role in ADVA/TAADVA as parental attachment. With regards to ECT, adolescents have been found to develop and maintain relationships online and consider those to be attachment relationships (Levine and Edwards 2014). A small study by Levine and Edwards (2014) with two adolescent females (age 15) found that for the females, attachment 'made sense' as a way of describing both their offline and online friendships, and that their secure relationships with parents were interpreting or guiding relationships with online friends. More research is needed to explore the role of various attachments in TAADVA and adolescent romantic relationships more generally.

Of relevance to these findings, the potential role of attachment anxiety within romantic relationships was identified as a key theme and a particular issue for young females in the pilot study for this thesis that explored the role of ECT in romantic relationships, communication and dating violence (Stonard et al. 2015; Appendix 3). In the pilot study, younger adolescent females were found to report feelings of anxiety, insecurity, jealousy, and obsession in terms of their ECT use within romantic relationships. They also perceived importance of communication more strongly, had a greater preoccupation with a partner's responsiveness to communication (i.e. proximity seeking), and worried about a partner's fidelity and communication with others of the opposite sex. This appeared to be enhanced by unique features of ECT (e.g. the constant, instant access and availability to contact a partner and access their personal information online). As a new method to communicate abusive behaviours, it is not known whether traditional theoretical perspectives equally apply to TAADVA instigated electronically, whether these traditional theories apply but need to be adapted, or whether even further developments of a new theory needs to be established in order to account for this new context of behaviour (Miró Llinares 2001: 5, cited in Agustina 2015: 39).

Finally, as a result of a lack of empirical research regarding adolescent attachment and romantic relationships, it is not known how factors such as age, maturation, relationship seriousness and dating behaviours may influence adolescent attachment to romantic partners and how such attachments influence adolescent experiences of ADVA/TAADVA. Cleveland, Herrera, and Stuewig (2003) suggest that their findings provide support for relationship seriousness not as a direct predictor of ADVA, but as a mediator or facilitator for some of the identified individual-level characteristics thought to influence ADVA such as: (1) high relationship seriousness - school attachment (males and

females) and timing of sex and love (males); and (2) low relationship seriousness - grade point average (males) and number of sexual partners (females). O'Keefe (1997) similarly found that relationship seriousness was a predictor of ADVA instigation for females. Further research is needed to explore the role of attachment, relationship characteristics, and peer influences such as friend dating violence in self-reported ADVA and TAADVA. This therefore informed the development of the second and third research questions of this thesis which are examined in Chapters 5-6: (2) Are characteristics that have been identified to be related to ADVA also associated with TAADVA? and (3) How does attachment to parents, partners and friends influence the relationship between peer dating violence experiences and self-reported experiences of ADVA and TAADVA?

2.6. Conclusion

This chapter has critically reviewed and synthesised the literature that has reported on risk/protective factors and correlates of ADVA/TAADVA and relevant theoretical perspectives. It is concluded that various theoretical perspectives are needed to account for the multidimensional nature of ADVA/TAADVA and the numerous potential influencing factors associated with ADVA/TAADVA. Although it is beyond the scope of this thesis to explore all of these issues, based on the findings from this review, the pilot study, and the gaps identified in the attachment literature, the role of attachment, past ADVA, relationship characteristics, and peer ADVA (including TAADVA) were explored within the context of self-reported experiences of TAADVA in this thesis. The following chapter (Chapter 3) outlines the methodological procedures and rationale used in order to answer the three principal research questions of the thesis.

Chapter 3: Methodology

3.1. Introduction

This chapter details the methodological approach adopted within this thesis, the results of which are reported in Chapters 4-6. The chapter starts with an overview of and rationale for the research design adopted. Details of the sampling procedure and participants are provided, followed by an outline and critical examination of the measures used, including the Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA) questionnaire, which was developed for use in this study. Also outlined in this chapter are the data collection methods and justification for the analytical procedures adopted. Additional, short summaries of methodological details specific to each study are provided in Chapters 4-6.

3.2. Design

Based on a review of the literature in Chapters 1-2, three research questions were identified for examination in this thesis: (1) What is the nature and prevalence of TAADVA?; (2) Are characteristics (i.e. peer dating violence, attachment, relationship closeness, age of dating partner, past ADVA, and age) that have been identified to be related to Adolescent Dating Violence and Abuse (ADVA) also associated with TAADVA involvement?; and (3) How does attachment to parents, partners and friends influence the relationship between peer dating violence experiences and self-reported experiences of TAADVA and ADVA?. The first question is addressed in Chapter 4, the second question in Chapter 5, and the final question in Chapter 6. A quantitative approach was used to address these questions as quantitative methods were considered the most appropriate for gathering data from a large sample in order to examine the nature and extent of adolescent involvement as a victim or instigator in TAADVA and conduct statistical tests to assess gender differences in TAADVA victimisation and instigation, the overlap of TAADVA and ADVA, and to examine the relationship between TAADVA and potential predictor variables. This approach involved the deductive testing of theories, by examining statistical associations between variables of interest (Creswell 2014).

In order to address the first research question, a new set of questions was developed using a robust framework outlined in Section 3.4.1. Although TAADVA has recently been acknowledged in

research, particularly in the US, these studies vary in their comprehensiveness in terms of the behaviours measured (e.g. insults, threats, humiliation, sexual pressure and controlling communication) and the Electronic Communication Technology (ECT) methods through which these behaviours are experienced or instigated (see Chapter 1). For example, only two studies have identified the specific ECT method through which TAADVA was experienced and/or instigated (Draucker and Martsof 2010 and Korchmaros et al. 2013). However, Draucker and Martsof (2010) used retrospective accounts of young adults' (age 18-21) adolescent (age 13-18) experiences of emotional abuse and controlling/monitoring behaviour and Korchmaros et al. (2013) only looked at psychological TAADVA perpetration via online, offline, text and phone call methods, which ignores different types of call and text (i.e. voice, picture, video, and messages via specific types of social media). It is therefore not known what role various ECT methods play in TAADVA behaviours.

The majority of TAADVA studies look at psychologically abusive, controlling and sometimes sexually abusive behaviours, while some divide TAADVA behaviours into sexual TAADVA or non-sexual TAADVA (Zweig et al. 2013b). During the initial stages of the current research project, only one other study had explored TAADVA in the UK (Barter et al. 2009), and more recently Fox et al. (2014) and Barter et al. (2015a) have added to this literature. Until Barter et al.'s (2015a) recent study, the measurement of TAADVA has been limited in the UK, consisting of only one or two items regarding the use of ECT in ADVA, compared to studies in the US (Picard 2007). Furthermore, definitions of TAADVA and the terminology used in TAADVA studies sometimes vary. For example, two of the 13 US TAADVA studies have used the CDC's definition of ADVA, which includes ECT as an avenue for abusive behaviour (Cutbush et al. 2012 and Tompson et al. 2013), while the others have used their own definitions of TAADVA. As little is known how British adolescents experience ADVA behaviours via ECT, or how relevant different forms of ECT are to TAADVA, there was a need to develop a new set of questions that would encompass the nature of this new form of dating violence. All items in the questionnaire were informed by existing literature, as well as British adolescents themselves during the piloting and development stages to inform the types of behaviours and ECT methods used as well as the layout and language to be used in the survey.

A self-report questionnaire was deemed necessary to answer the research questions relating to the nature, prevalence, and correlates of TAADVA as questionnaires are an efficient method for obtaining data from a large number of participants at the same time (Bryman 2004). They also provide

an opportunity for the researcher to build in protections against bias in addition to being able to generalise and replicate the findings (Creswell 2014). While quantitative approaches provide a general understanding of the problem and are well suited to analysing data from a large number of people, the understanding of any one individual is diminished (Creswell and Clark 2011), and therefore a deeper understanding of the meaning and impact of the role of ECT in ADVA cannot be captured. This is beyond the scope of the thesis; however future research can explore this and expand our understanding.

3.3. Participants

A total of 469 participants (aged 12-18 years) were recruited using opportunity and purposive sampling. The number and gender of participants and their age range, mean ages, standard deviations and ethnicity are presented in Table 3.1. A more detailed breakdown of the participants' ethnicities and parental marital status is provided in Appendix 4.

Table 3.1
Number, gender, age and ethnicity of participants

<i>n</i>	Male (<i>n</i>)	Female (<i>n</i>)	Age Range	Mean Age (<i>SD</i>)	Ethnicity - White
469	48% (224)	52% (245)	12-18	13.9 (1.27)	88%

Of the 469 participants, 334 were recruited from three secondary schools, 90 from seven youth clubs and 45 through snowball sampling methods of those in the target age group in the Midlands area of England. A breakdown of the number of participants from each individual setting is provided in Table 3.2.

Table 3.2

Breakdown of survey sample settings

Setting	No. Participants	% of total	Description; levels of deprivation
Schools			
School 1	41	8.7%	Years 7-9; very few students eligible for free school meals
School 2	12	2.6%	Years 7-9; below-average proportion of students eligible for free school meals
School 3	281	59.9%	Years 7-11; 18.5% eligible for free school meals (national average =28.5%)
Youth Clubs			
Youth Club 1	21	4.5%	Local authority funded youth centre
Youth Club 2	11	2.3%	Open access youth club
Youth Club 3	21	4.5%	Christian youth club
Youth Club 4	18	3.8%	Youth and community centre
Youth Club 5	5	1.1%	School-based youth club
Youth Club 6	6	1.3%	School-based youth club
Youth Club 7	8	1.7%	Girlguiding group
Snowball sample	45	9.6%	
Total	469	100%	

3.3.1. Comparative analysis of age, gender and ethnicity between sample type

Comparative analysis of the three types of sample with age, gender, and ethnicity were conducted to examine whether there was any bias across the samples. A one-way between groups ANOVA examining the age differences in the type of sample (secondary school, youth club and snowball) revealed that there was a significant effect of group age ($Welch = 54.297$ (2, 81.037), $p < .001$, $\eta^2 = .58(1)$). A Welch test was used as the assumption of homogeneity of variances was violated (Field 2009). Games-Howell post hoc analyses revealed that the mean age of participants in the youth club sample ($M = 15.28$, $SD = 1.81$) was significantly higher than the secondary school sample ($M = 13.47$, $SD = .52$, $p = .000$, Cohen's $d = 1.36$), but not significantly higher than the snowball sample ($M = 14.67$, $SD = 1.64$, $p = .125$, Cohen's $d = .35$). The age of the snowball sample was also significantly higher than the school sample ($p = .000$, Cohen's $d = .99$). Age was therefore added as a potential predictor in the analysis of correlates of TAADVA in Chapter 5. A Pearson Chi-square test comparing the different types of sample with gender revealed that there was a significant relationship between groups ($\chi^2(2, 469) = 13.46$, $p < .001$, Cramer's $V = .17$). Post hoc analysis revealed that significantly fewer male ($z = 2.13$, $p = .03$) and significantly more female adolescents ($z = 2.04$, $p = .04$) were in the youth club

sample. In the youth club sample, 32% were males and 68% were females. There was not a significant relationship between ethnicity and the different types of sample ($\chi^2(10, 469) = 15.29, p = .122$, Cramer's $V = .13$).

3.3.2. Determining sample sizes

Considerable challenges were faced during the recruitment of adolescent participants from schools, youth clubs and the snowballing contacts, meaning that ultimately, the sample size achieved reflected the ability to recruit gatekeepers and willing participants within the target age range. When determining the sample size needed for a study, it is important to consider the type of analysis to be performed in order to preserve statistical power (Bryman 2004). Statistical power is the probability that a statistical test will correctly reject the null hypothesis and is determined by three factors: sample size, effect size and alpha level (Rossi 2012). An increase in any of these factors is reported to increase statistical power (Rossi 2012). For example, in Chapter 5, multinomial logistic regression was performed to examine 13 potential correlates of TAADVA (see Section 3.6). Field (2009) identifies some common rules for estimating required sample sizes when using regression analysis such as the requirement of 10-15 cases of data for each predictor in the model. For example for five predictors, this would mean 50-75 cases of data are needed. In Chapter 5, the final multinomial logistic regression models had five (combined after testing for multicollinearity to four) predictor variables for males and nine for females (e.g. (4)5-9 predictors x10-15 cases of data), meaning (40)50-(60)75 (male) to 90-135 (female) participants were therefore required as a minimum sample size for the total sample based on these guidelines. A total of 105 and 145 cases of data were used in the multinomial logistic regression for males and females respectively, meaning this fits well beyond that of the minimum range suggested by Field (2009). Post hoc power analysis confirmed that the analyses had sufficient power (i.e. all significant predictor variables met the suggested level of power > 80% (see Chapter 5, Section 5.3.4.4). There were only three (two in the final steps) predictors used in each of the two logistic regression models conducted for females in Chapter 6, meaning the sample size of 131 was sufficient. All significant predictors approached (e.g. 78%) or exceeded the suggested acceptable level of power of at least 80% (Cohen 1988; Chapter 6, Section 6.3.3.4).

3.4. Measures

Six questionnaires were used in this study to examine the research questions. A newly derived TAADVA questionnaire and five additional scales were used in order to explore the relationship between TAADVA and the identified potential correlates (outlined in Section 3.4.2). The additional scales include: controlling ADVA and physical ADVA, perceived relationship closeness, avoidant and anxious attachment, and social desirability. Some specific conclusions and lessons were learned from the review and critique in Chapter 1 of the existing ADVA (see Section 1.5.1.4) and TAADVA (see Section 1.6.4) measures that informed the development and design of the new set of TAADVA questions (Section 3.4.1). In addition to attempting to cover a range of TAADVA behaviours and the various methods of ECT through which they can be experienced and instigated, measures of controlling and physical ADVA were included in order to attempt to capture some of the broader context of the violent and controlling behaviour experienced and compare this with TAADVA. Attempts to make response categories to the TAADVA questions more realistic were made by using options such as ‘daily’, ‘weekly’, and ‘monthly’ on a seven-point scale. Participants were asked to report on experiences of victimisation and instigation when they instigated the violence not in self-defence or experienced violence not as a result of a partner’s defence. Questions were included regarding the impact of TAADVA although these are not reported on as part of the thesis and is summarised in Appendix 5. Attempts to assess and minimise under or over-reporting were made by including a social desirability scale and assuring participants anonymity and confidentiality. Reasons for TAADVA were asked in the pilot version TAADVA questions however this was later removed (see Section 3.4.1.6.4). The questions did not specifically categorise the severity of individual acts, the motive for violence, nor did it account for fear, dependency or female devaluation (DeKeseredy and Schwartz 2011). The following sections will outline the process followed for the development of the new set of questions to investigate TAADVA, including the pilot study, followed by an overview of the final questionnaire and the five additional scales used.

3.4.1. TAADVA questionnaire development

A new set of questions was developed in order to explore the nature, prevalence, and impact of TAADVA (and dating experience and friend ADVA/TAADVA). The development of a new set of questions was warranted in this instance because limited research was found to have comprehensively

investigated TAADVA or the ECT methods through which these behaviours are experienced (see Chapter 1). Although this is not a psychometric scale, a robust process was used to develop the set of questions, as outlined by DeVellis (2012), which included an eight stage process of developing and piloting and initial set of questions before reviewing and optimising the questionnaire. The final version of the questionnaires used is outlined in more detail in Section 3.4.2.

3.4.1.1. Stage 1: Assess and determine the topic of measurement

The first stage in developing the new questions to measure TAADVA was a comprehensive review of the literature. Following thorough searches of bibliographic databases, literature regarding the nature, prevalence and impact of ADVA and TAADVA was reviewed (see Chapter 1). In addition, other areas of literature were also examined, for example, that concerning cyberbullying amongst school-aged samples (Hinduja and Patchin 2008, Hoff and Mitchell 2009, Rivers and Noret 2010, Schneider et al. 2012 and Smith et al. 2008) and cyber-harassment and cyberstalking amongst young adult and adult samples (Bennett et al. 2011, Burke et al. 2011, Dimond, Fiesler, and Bruckman 2011, Finn 2004 and Southworth et al. 2007; Matlock and Westerman 2011). This helped to inform an understanding of the ways in which ECT is used within the context of abusive and controlling behaviour and what ECTs methods are used during the early stages of the research.

Considerably less research was found that reported on the prevalence and impact of TAADVA experienced or instigated by adolescents aged 12-18 years old. At the beginning stages of the questionnaire development process during late 2012 to early 2013, few published studies had investigated TAADVA (Associated Press and MTV 2009, 2011, Barter et al. 2009, Cutbush et al. 2010, Cutbush et al. 2012, Hinduja and Patchin 2011 and Picard 2007), and only one peer-reviewed journal article (Draucker and Martsof 2010) was available. These preliminary TAADVA studies were invaluable for the development of the initial version of the questionnaire. Further studies were found during the pilot phase and refinement of the questionnaire (e.g. Fox et al. 2014, Thompson, Benz, and Agiesta 2013, Korchmaros et al. 2013, and Zweig et al. 2013a, 2013b), and were used to further improve the questionnaire. A range of TAADVA behaviours and ECTs were identified in Chapter 1 (see Section 1.6), however studies varied in their definition and operationalisation of TAADVA. Attempts were therefore made to integrate the previous literature into a comprehensive questionnaire, capturing the detail of the nature of TAADVA behaviours and ECTs used.

As a relationship had been found between involvement in traditional ADVA and TAADVA (Cutbush et al. 2010, 2012), and later (Dick et al. 2014, Epstein-Ngo et al. 2014, and Zweig et al. 2014a), the new questionnaire was informed by the possibility that those involved in traditional ADVA behaviours may also be at risk of similar behaviours via ECT. Therefore, it was initially decided to include items that measured various TAADVA behaviours for a number of different ECTs in addition to whether such behaviours were experienced in person. In addition, and as a result of the findings in Chapter 1 (i.e. that peer ADVA is a particular risk factor for personal ADVA), questions on friend ADVA and TAADVA were also included.

3.4.1.2. Stage 2: Generate an initial pool of items

A range of ADVA behaviours and ECTs through which such behaviours could be instigated were identified in Chapter 1. From this, a large initial pool of possible items was generated. These items were then inserted into a broader questionnaire comprising 11 subsections with a total of 244 questions (Appendix 6). These included: (1) demographic information, (2) dating experience, (3) ECT use, (4) victimisation and instigation of TAADVA behaviours (and in-person), (5) physical dating violence victimisation and instigation, (6) reasons for TAADVA, (7) awareness of peer ADVA/TAADVA, (8) the perceived impact of TAADVA relative to ADVA, (9) the impact of TAADVA, (10) the response and outcome of TAADVA, and (11) TAADVA victimisation and instigation after a relationship has ended. Corresponding definitions of cyberbullying, cyber-teasing, cyber-harassment and ADVA were also provided. The questionnaire was revised several times before the pilot. Some items were developed purposely for this research, as they had not been examined in previous studies while other items were taken or adapted from previous research.

3.4.1.2.1. Section 1: Demographic information

This section included five items regarding the respondents' gender, age, school year, ethnicity, and parental marital status.

3.4.1.2.2. Section 2: Dating experience

A definition of a dating relationship was provided that was adapted from the 'Love is Respect' (n.d.) support website:

‘Dating’ is a term used to describe when two people are in an intimate relationship.

The relationship may be sexual, but it does not have to be’.

This section included 10 items regarding whether the respondent had: (1) ever dated^a, (2) was currently dating^a, (3) whether they knew someone their age who was dating^b, (4) age of dating onset^b, (5) number of previous relationships, (6) how often they usually see their current or most recent dating partner^a, (7) how long they usually spend with them when they see them, (8) what activities they typically do when spending time together^{ab}, (9) how old their partner was^c, and (10) the length of the respondents’ current or most recent relationship^a. These items were included in order to determine the nature, onset and frequency of dating relationships in adolescence. The items were mainly informed by and adapted from Connelly et al.’s (2004)^a and Fredland et al.’s (2005)^b studies into adolescent romantic relationships. The age of dating partner item was informed by Barter et al.’s (2009)^c ADVA study. The superscripts ‘a-c’ identifies which questions were developed from which sources.

3.4.1.2.3. Section 3: ECT use

This section included 16 items regarding the respondents’ general ECT (phone call, texting, sexting, talking online, instant messenger, social networking sites, chatroom, blogging, email, posting pictures and videos online and online dating) use and use of ECT in friendships and dating relationships. A final question also asked respondents about where and on what devices they could access the Internet including by a mobile phone, tablet, laptop, computer, at home, bedroom, school, library, and via friends. This section was informed by the seven ECTs identified in Smith et al.’s (2008) study of cyberbullying and Livingstone et al.’s (2011) research into young people’s online behaviour, Internet risks and safety.

3.4.1.2.4. Section 4: Victimisation and instigation of TAADVA

This section included 108 items (54 each for victimisation and instigation) regarding adolescents’ involvement in six TAADVA behaviours (Table 3.3) via eight methods of ECT (phone call, text, picture/video, email, social networking site, instant messenger, chatroom, and website/blog), as well as via face-to-face. These eight ECTs were adapted from the seven ECTs identified by Smith et

al.'s (2008) study on cyberbullying, with the addition of social networking sites. Table 3.3 provides a summary of the research that influenced the generation of these questionnaire items.

Table 3.3

Summary of the research used to generate the new TAADVA questions

This item has been removed due to 3rd Party Copyright. The unabridged version of the thesis can be found in the Lancaster Library, Coventry University.

Note: Each question is measured for experience or use in person or via eight ECTs informed by (Smith et al. 2008).

3.4.1.2.5. Section 5: Physical ADVA victimisation and instigation

This section included two items regarding respondents' victimisation (one item) and instigation (one item) of any form of physical ADVA. Only one item was included regarding physical violence experience and instigation due to initial concerns for the length of the developing instrument.

3.4.1.2.6. Section 6: Reasons for TAADVA

This section included two items regarding respondents' perceived explanation for TAADVA victimisation (one item) and instigation (one item). The response options included: for a joke/play, argument, to bully, control, I/they did something wrong, and 'I don't know'. These items were influenced by the findings in the review of literature in Chapter 2 (Section 2.3).

3.4.1.2.7. Section 7: Awareness of peer TAADVA/ADVA

This section included eight items that asked respondents whether they were aware of TAADVA and ADVA (physical, emotional and sexual) victimisation and instigation in their peer or friendship group. These items were also influenced by the findings in the review of literature in Chapter 2 (e.g. Arriga and Foshee 2004).

3.4.1.2.8. Section 8: Perceived impact of TAADVA relative to ADVA

This section included eight items (referring to the eight identified ECTs – see Section 3.4.1.2.4), which asked respondents whether they perceived the impact of TAADVA was less, the same or more harmful than ADVA. A ninth open-ended item asked respondents to explain in their own words, their chosen answers to the previous eight questions. These items were also adapted from Smith et al.'s (2008) cyberbullying study.

3.4.1.2.9. Section 9: Impact of TAADVA

This section included 12 items each for victimisation and instigation (24 in total) in which respondents were required to rate whether their experience or use of TAADVA (as reported on in Section 3.4.1.2.4) had an impact on them rated using a series of statements (e.g. it had no impact, it had an impact, experienced an emotional effect, was distressed, angry, embarrassed, anxious, felt guilty, scared, cried, missed school, and had an impact on the respondents' relationship). These items were informed by previous research (Barter et al. 2009, Burman and Cartmel 2005 and Ismail, Burman, and Ward-Griffin 2007).

3.4.1.2.10. Section 10: Result and outcome of TAADVA

This section included 11 items each for victimisation and instigation (22 in total), which are completed in response to the TAADVA experienced or instigated in Section 4 (see Section 3.4.1.2.4) of the questionnaire. These items were adapted from Madlock and Westerman's (2011) study and ask about the participant's response to TAADVA. These included responses such as using a mobile or online tool to retaliate or discuss the incident with a partner, taking mobile or online action to block a partner, confronting or discussing the incident face-to-face with a partner, telling someone about the

incident and taking no action. An additional item asked respondents whom they or their partner told about such experience if they did. A further five items were included for each victimisation and instigation regarding the outcome of their experience or instigation of TAADVA (e.g. the situation was resolved, it was smoothed over, verbal face-to-face aggression, physical face-to-face aggression and the ending of the relationship) in order to understand the consequences of TAADVA. This section therefore had a total of 32 items.

3.4.1.2.11. Section 11: TAADVA after a relationship has ended

This section included 12 items (six each for victimisation and instigation) regarding respondents' experience or instigation of the six TAADVA behaviours (*Section 4*) after a relationship break up. These final items were included in order to extend our understanding of continued TAADVA after a relationship has ended.

3.4.1.3. Stage 3: Determine the format for measurement

Participants were required to circle their answer from the selected options or Likert-type scale where provided unless stated otherwise. Response categories varied for each section depending on the topic and focus of the questions. For example, when measuring ECT use (*Section 3*), TAADVA behaviours (*Section 4*), physical dating violence (*Section 5*), and TAADVA after a relationship had ended (*Section 11*), a Likert-type scale ranging from 1 (*never*), 2 (*at least once*), 3 (*monthly*), 4 (*fortnightly*), 5 (*weekly*), 6 (*daily*), to 7 (*hourly*) was used in order to understand both the nature and frequency of adolescents' experience and/or instigation of TAADVA. It must be noted here that this scale originally had six responses however the 'at least once' option was added following the first pilot session due to the recognised need for this amendment by one of the participants (*Section 3.4.1.6; Stage 6*). For the questions regarding the impact of TAADVA (*Section 9*), participants were asked to rate the extent to which they agreed with a series of statements ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). When asked about their response to TAADVA (*Section 10*), the scale ranged from 1 (*never*), 2 (*once*), 3 (*sometimes*), to 4 (*always*). In the other sections; demographic information (*Section 1*), dating experience (*Section 2*), reason for TAADVA (*Section 6*), peer awareness of ADVA/TAADVA (*Section 7*), and the perceived impact of TAADVA relative to in person ADVA

(Section 8), participants were simply asked to select a dichotomous yes/no option or select an answer from a list of predefined categorical responses (Appendix 6).

3.4.1.4. Stage 4: Have the initial item pool reviewed by experts

The initial pool of items were organised into a questionnaire with 11 sections in total. This version of the questionnaire was then sent to experienced members of the researcher's supervisory team within the Psychology and Behavioural Sciences Department at Coventry University to review the items and subsections for their relevance to the research aims.

3.4.1.5. Stage 5: Consider inclusion of validation items

3.4.1.5.1. Children's Social Desirability Scale

Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under investigation; for example, we actually measure what we say we are measuring (Babbie 2014). A pilot study was conducted (*Stage 6*) to assess the face validity of the questionnaire, however a full validation of the questionnaire was beyond the scope of this thesis. In order to maximise the reliability of the questionnaire developed, a social desirability scale adapted for children and young people was included to measure the reliability of the adolescent participants' responses. The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne and Marlowe 1960) is a 33-item measure of socially desirable responding widely used with adult samples. Based on the content of this scale, Crandall, Crandall and Katkovsky (1965) developed and administered two forms of the Children's Social Desirability Scale (CSDS), one used with younger children (grades 3-5) and one for older children/adolescents (grades 6-12). A true-false format was used for the older children, a similar format to that used with adults in the MCSDS. The scale contains 48 statements with 26 items keyed true. High scores indicate a fear of disapproval (Crandall, Crandall, and Katkovsky 1991). Additional items include child-specific content (e.g. 'sometimes I want to do things my parents think I am too young to do') or items that are worded in children's language (e.g. 'sometimes I wish I could just 'mess around' instead of having to go to school'; Crandall, Crandall, and Katkovsky 1991: 44). Crandall, Crandall, and Katkovsky (1965, 1991) found high split-half reliability (.82 to .95) and test-retest correlation (.85) at a one-month interval. Allaman, Joyce, and Crandall (1972) reported test-retest correlations of .90 after one month and .43 and .19 over 3 years for males and females respectively.

Baxter et al. (2004) adapted this full version of the CSDS for their study regarding children and the social desirability for food scale using the yes/no answer version designed for younger children. The authors found adequate internal consistency and test-retest reliability for the CSDS scores and developed a 14-item subset that was found to sufficiently measure the same construct and also had adequate test-retest reliability (.83). The test-retest reliability of the 14-item subset of the CSDS was not assessed by itself and responses were collected in the context of the other 32 items of the scale. Nevertheless, Baxter et al. (2004) suggest that the identified subset of 14-items from the CSDS could permit an efficient, yet adequate, measurement of social desirability in children. This was administered with the questionnaire and a copy of the 14-item CSDS can be found in Appendix 7.

3.4.1.6. Stage 6: Administer instrument to a development sample

The questionnaire was piloted with adolescents in order to refine the questionnaire further and to gain feedback on its feasibility and suitability. The pilot study was conducted in two phases in which participants completed the first version of the developed questionnaire, followed by focus groups with a voluntary subset of these respondents in order to gain in-depth feedback regarding the questionnaire content, language and layout.

3.4.1.6.1. Pilot sample

A total of 83 participants completed the questionnaire and of these 52 also participated in focus groups. Of the 83 adolescents who completed the questionnaire, 70 were recruited via a secondary school (school years 8-10) and 13 via snowballing methods. Forty of the focus group participants were from the school sample and 12 from the snowball sample. The school accessed had students in years 7-11 and 27.4% of pupils were eligible for free school meals in 2013 (National average = 28.2%). All participants who completed the questionnaire were between the ages of 12-18 years old ($M=13.5$ years old; $SD=1.37$) and 54% were female. The majority (90%) of participants described themselves as White, followed by Mixed race (6%), Black (2%), and Asian (2%). Respondents' most commonly stated their parental marital status as married (41%), divorced (22%), single (16%), living with partner (11%), and separated (10%). Participants who took part in the focus groups were also between the ages of 12-18 years old ($M=13.7$ years old; $SD=1.56$) and 56% were female. The majority (92%) of participants described themselves as White, followed by Mixed race

(6%), Asian (1%), and Black (1%). Respondents' most commonly stated their parental marital status as married (40%), divorced (28%), single (14%), living with partner (9%), or separated (9%).

3.4.1.6.2. Pilot procedure

Following gaining ethical approval (Appendix 8) and gatekeeper permission, participants were selected using opportunity and purposive sampling methods based on access and availability. Participants were accessed through one secondary school and through contacts from the researcher's social networks using an opt-out parental consent procedure. The data collection took place between July and December 2013. Parents were informed about the research by letter (that was either sent home with the young people from the school or given directly to the parent/young person in the case of the snowballing method), and asked to withdraw their child if they wished to do so. The teachers also delivered a speech to the young people prepared by the researcher to introduce them to the research. A group call (text message home to parents) was sent to the parents to inform them of the letter coming home and to remind them about the deadline for responding if they wished to opt their child out.

The questionnaire was administered in the same way in both the school and via the snowballing sampling methods (e.g. the same introduction and instructions were given, and were delivered by the same person) to ensure consistency in the process. The only difference between the different samples was the setting (i.e. classroom and home setting). For example, the former was conducted in a school conference room or within a classroom setting with a teacher present as well as the researcher. The latter was conducted at one of the participant's family homes with a family member present but in a different room, which may be considered as less formal than the school setting. The young people were introduced to the study by the researcher, who went through the participant information sheet and consent form with them. All adolescents were also asked for signed, informed consent. The questionnaires were administered to participants in person as pencil-and-paper, self-report questionnaires and were completed individually (Appendix 6-7). Participants were provided with opportunities to ask questions and seek clarification on anything they did not understand before, during and after the data collection process. It took between 20-45 minutes for participants to complete the questionnaire and once completed they handed their questionnaire back to the researcher. Data collection was conducted over seven sessions in total, four of these in the school setting and three through the snowball sample.

Focus groups were also conducted with 52 of the 83 adolescents who completed the questionnaire to gain feedback on the measure in terms of not only its content (i.e. are the TAADVA behaviours and ECTs relevant and were any TAADVA behaviours or ECTs missed), but also on the format, layout, language, terminology used, and the available response categories. A semi-structured interview schedule was prepared for the focus group discussions (see Appendix 9). The process of recruitment and administration for focus groups was conducted in the same way as it was for the questionnaires in both the school and via the snowballing sampling methods (e.g. the same introduction, schedule, by the same person). The focus groups in the school setting were conducted in a classroom, conference room or other office room immediately after completion of the questionnaire or during the same class in the following week. The others were conducted immediately following the questionnaire in the snowball (home) settings. Although having a teacher present or a family member in the home but in a different room may have an effect on adolescents' willingness to talk about relationships and abusive and controlling behaviour, they were not asked to directly talk about their personal experiences (although some freely did). Furthermore, participating adolescents were informed of the nature of the focus group discussions and had given their consent to take part, understanding that their participation was voluntary. A total of eight focus groups were conducted; five of these with participants from the secondary school, and three via snowballing methods. These groups ranged in size from 3-12 participants and varied in length from approximately 20-60 minutes. These were either conducted based on year group (i.e. same age) or were a mix of participants from more than one year group. Most focus groups were mixed-gendered except one all-female group of year 8 students in the school sample. The focus groups were audio recorded to allow for later transcription and thorough analysis of the data. Following each focus group, participants were debriefed.

3.4.1.6.3. Pilot focus group findings

The adolescents highlighted a number of areas in which they thought the questionnaire was in need of modification or improvement in terms of clarity and relevance of the TAADVA behaviours measured. There were some contrasting views between participants both within and between year groups. Critical assessment of these comments meant that any changes or amendments to the questionnaire had to be made in response to the majority, in order to cater and appeal to the highest proportion of the target population as possible.

During the first session of data collection for the pilot study, one participant identified that there was not a response option for a frequency of experience that accounted for 'at least once', relative to the other options that ranged from 'never', 'monthly' to 'hourly'. As this was identified early during the first data collection session and due to the sample during this session being relatively small ($n=7$), respondents were asked to write this in their questionnaires if that option applied to them in this instance. This was then immediately amended before further piloting due to the importance of this feedback.

There was a general consensus that the layout of the questionnaire and response format (e.g. the inclusion of a key and scales grid; see Appendix 6) was suitable for the type of questions and the age group at which the questionnaire was aimed. However, the layout of the questions measuring TAADVA victimisation and instigation was reported to cause confusion. It was suggested that having both the 'victim' and 'instigator' columns within the same question and page made it harder to follow and confusing for some participants. This was therefore separated into two separate questions and sections (one for victimisation and one for instigation) in order to expand the question and response categories more clearly over a single page (Appendix 10). Another common theme running through the questionnaire feedback discussions regarding the TAADVA behaviours was that the questions were at times repetitive or a bit 'wordy'. The separating of the 'received' and 'sent' questions regarding these behaviours helped to resolve this issue. Attempts were also made throughout to keep the questions as brief as possible.

In terms of the terminology used in the questionnaire, when referring to adolescent romantic relationships, the majority of the respondents felt that the term 'dating relationship' used in the questionnaire was not appropriate to their age group. There was a general consensus among participants that the term 'going out' was more appropriate and that they would refer to their dating partner as a 'boyfriend' or 'girlfriend'. The term 'dating' was perceived as referring to a more 'serious' relationship, which may be characterised in terms of the length of that relationship. The terms girlfriend and boyfriend were therefore used in the modified version of the questionnaire.

Although the respondents felt that most of the ECTs relevant to adolescents had been included in the questionnaire, they suggested that picture and video communication should be separated as their own unique categories. This was therefore changed accordingly. Emails, chatrooms and the use of websites/blogs were considered as less relevant to adolescents and their communication choice with a

girlfriend/boyfriend. These ECTs were still reported in the preliminary questionnaire findings and so these were retained.

During discussions of the nature of TAADVA, the participants identified a number of acts that they thought needed to be defined more specifically and/or clearly. Adolescents described awareness of specific monitoring or controlling behaviours among their peers in addition to some providing examples of personal experiences (Stonard et al. 2015; Appendix 3). These behaviours included checking a partner's messages and Facebook histories, demanding phone lock and Facebook passwords (in order to check message or contact histories), and deleting ex-partners or friends of the opposite sex from a partner's social networking accounts. Following this pilot study, and further consultation with the current and newly gathered literature since the questionnaire development (see Chapter 1), the initial six TAADVA behaviours were changed to 12 refined behaviours to make the questionnaire as comprehensive possible while also reflecting the participants' feedback and new literature. These are stated in the final measures section (Section 3.4.2.1.5). Table 3.4 provides a summary of the updated research used to generate and refine the questions. Table 3.4 shows how the TAADVA behaviours were separated into more specific behaviour types and also includes new literature published since the initial version of the pilot was developed, as well as the previously identified literature collectively.

Table 3.4

Summary of the updated and amended questions and the new research sources

Q.	TAADVA Questions: i.e. behaviours experienced and instigated to a dating partner	Sources
1	Insulting, mean or hurtful personal comments e.g. called you names, put downs etc.	Picard (2007); Associated Press and MTV (2009); Cutbush et al. (2010); Draucker and Martsolf (2010); Associated Press and MTV (2011); Thompson, Benz, and Agiesta (2013); Zweig et al. (2013b)
2	Comments or acts that were intended to embarrass, humiliate or shame you e.g. spreading rumours	Picard (2007); Barter et al. (2009); Cutbush et al. (2010); Associated Press and MTV (2011); Hinduja and Patchin (2011); Thompson, Benz, and Agiesta (2013)
3	Shared or distributed private or personal information/images/video etc.	Picard (2007); Cutbush et al. (2010); Hinduja and Patchin (2011); Zweig et al. (2013b)
4	Threatening comments or behaviours that were intended to threaten harm, intimidate or bully you.	Picard (2007); Barter et al. (2009); Cutbush et al. (2010); Associated Press and MTV (2011); Hinduja and Patchin (2011); Thompson, Benz, and Agiesta (2013); Zweig et al. (2013b)
5	Been contacted to check on you and ask you where you are, what you are doing and who you are with.	Picard (2007); Associated Press and MTV (2009); Barter et al. (2009); Cutbush et al. (2010); Draucker and Martsolf (2010); Associated Press and MTV (2011); Thompson, Benz, and Agiesta (2013)
6	Asked or pressured you to engage in sexual acts or to send messages/pictures that you did not want.	Picard (2007); Cutbush et al. (2010); Associated Press and MTV (2011); Thompson, Benz, and Agiesta (2013); Zweig et al. (2013b)
7	Been sent sexual or inappropriate messages/pictures etc. that you did not want.	Zweig et al. (2013b)
8	Checked your messages, contact histories or friend lists/networks.	Associated Press and MTV (2009); Draucker and Martsolf (2010); Associated Press and MTV (2011); Thompson, Benz, and Agiesta (2013); Zweig et al. (2013b); Fox et al. (2014)
9	Demanded your passwords to check messages, contact histories or friend lists/networks.	Associated Press and MTV (2009, 2011); Thompson, Benz, and Agiesta (2013)
10	Deleted or removed contacts or friends or ex-partners.	Associated Press and MTV (2009, 2011); Thompson, Benz, and Agiesta (2013)
11	Made you feel afraid not to respond to a call, text, message etc.	Picard (2007); Cutbush et al. (2010); Thompson, Benz, and Agiesta (2013)
12	Prevented you from using electronic communication technology or from talking to others.	Hinduja and Patchin (2011)

Note: Each question is measured for experience or use via nine ECTs informed by (Smith et al. 2008).

3.4.1.6.4. Final observations and reflections on the feedback and findings

The review of the literature in Chapter 2 identified that experiences of offline ADVA was associated with TAADVA, peer and family influences (i.e. friend ADVA and family violence) were particularly important in self-reported ADVA, and that social learning, attachment, and feminist theoretical perspectives may play a potential role in ADVA. However, research regarding the correlates and theoretical explanations of TAADVA, and attachment style and characteristics in particular, are less empirically advanced. In addition, findings from the pilot study identified the potential importance of anxious feelings and insecurities with regards to ECT-based communication in dating relationships (Stonard et al. 2015; Appendix 3). The adolescents also discussed awareness of obsessive, abusive, controlling and monitoring behaviours online or via a mobile within their own and peer romantic relationships. Therefore, in order to examine the potential correlates of TAADVA, four additional scales were included to answer Research Question 2 and/or 3. These scales were: physical Victimization/Perpetration in Dating Relationships Scales (VDRS/PDRS; Foshee et al. 1996); Controlling Behavior Scale (CBS; Graham-Kevan and Archer 2003); Unidimensional Relationship Closeness Scale (URCS; Dibble, Levine, and Sun Park 2012); and Experiences in Close Relationships – Relationship Structures questionnaire (ECR-RS: Fraley et al. 2011).

The inclusion of a separate offline controlling ADVA measure replaced the ‘in person’ item that was previously included alongside the eight ECTs for each TAADVA behaviour question and provided a suitable alternative following the refinement of the questionnaire (Appendix 6). This inclusion was also made for the physical ADVA measure for parity. Unfortunately, offline sexual violence was not measured due to a number of ethical and practical reasons. For example, due to the age of participants and the potential disclosure of underage sexual behaviours (particularly with older, legal age partners) and sexual abuse, it was thought to be too sensitive to include. Generally, participation in the research was limited due to the sensitive nature of the subject and beliefs by some gatekeepers that young people at their organisation “were not involved in romantic relationships”, never mind of a sexual nature. Furthermore, discussions with some potential gatekeepers during the participant recruitment process revealed discomfort and hesitance for questions regarding offline sexual violence to be asked. A final consideration here is that reports of sexual violence tend to be low compared to psychological and physical violence (see Chapter 1) and are likely to be subject to socially desirable responding (as are other forms of ADVA) and underreporting (Fernández-González, O’Leary,

and Muñoz-Rivas, 2013, Lewis and Fremouw 2001 and Simon et al. 2010). This should be addressed where possible in future research. The methodological implications of this are considered in the general discussion chapter (Chapter 7).

A final observation was that many participants missed the latter sections (Sections 9-11) of the TAADVA questionnaire relating to the impact, response and outcome of TAADVA involvement and post-relationship TAADVA, despite instructions on when these sections needed to be completed (i.e. if experienced or used the TAADVA behaviours in Section 4). These instructions were made clearer and enhanced by bold typeface in addition to the researcher emphasising this during the data collection session in order to attempt to mitigate this issue. Other sections of the piloted version of the questionnaire were refined (e.g. dating experience) or removed (e.g. ECT use; reason for TAADVA; perceived impact of TAADVA relative to in person ADVA; and TAADVA after a relationship has ended) due to them causing confusion during the pilot or being deemed as no longer relevant following the piloting of the questionnaire and the refining of the research questions and hypotheses. Such changes can be seen in the copies of the old (Appendix 6) and new (Appendix 10, 11, 12, 13) version of the questionnaire and additional measures.

3.4.1.7. Stage 7: Evaluate the items

Standardised reliability and validity checks were not possible due to the nature of the pilot data collected (i.e. large number of variables) and the small sample size used. An assessment of the pilot questionnaire in terms of its vulnerability to socially desirable responding was conducted in order to attempt to evaluate the reliability of the questionnaire. Although it is not possible to force respondents to answer honestly and refrain from answering in a socially desirable way, it is possible to attempt to identify (e.g. through the use of social desirability scales) and manage (e.g. with the use of forced-choice items and self-administration of the questionnaire) the effects of socially desirable responding (Nederhof 2006). The respondents completed the 14-item CSDS (as outlined in *Stage 5*). The adolescent respondents were asked to complete the questionnaire on their own privately, in order to ensure participants felt comfortable to answer honestly. Participants were also provided with the opportunity to review, check and amend their responses (responses which they may not have been entirely truthful to or which they had to think about) at the end of the data collection session. The researcher also emphasised the importance of honest and truthful answers in addition to emphasising

assurances of anonymity, confidentiality and non-judgement, regarding the participants' responses at both the start and the end of the data collection procedure.

3.4.1.7.1. Correlations with social desirability

A summary of the items for which male or female responses were significantly correlated with social desirability is provided in Table 3.5. Bonferroni corrections were applied to correct for multiple comparisons (.05/10 = .005 and .05/5 = .01). Significant correlations were only found for four items (two positive and two negative) and for males only (Table 3.5). These should be interpreted in caution due to the small sample size for these questions.

These positive associations indicate that males were more likely to report that they/their partner has engaged in these behaviours in response to the TAADVA experienced or instigated (i.e. telling someone, and a partner taking mobile action to block the instigator) when they had not. The negative associations indicate that males were more likely to underreport the outcome of their victimisation/instigation (i.e. making up after the incident). As these correlations could not be computed for females as a result of the variable being constant and/or the small sample size, comparisons of z-scores could not be performed.

Table 3.5
Significant correlations with social desirability for males and females

Section; Question	Male		Female	
	Pearson <i>r</i>	<i>n</i>	Pearson <i>r</i>	<i>n</i>
Response to victimisation				
Told someone	.98*	5	^a	5
Outcome of victimisation				
Made up or smoothed over	-.98*	5	^a	6
Response to instigation				
They took mobile action (i.e. block)	1.00**	3	^a	1
Outcome of instigation				
Made up or smoothed over	-1.00**	3	^a	1

Note: *Correlation is significant at the .01 level (2-tailed); **.001 level (2-tailed) Bonferroni corrected. ^aCannot be computed because one of the variables is constant

3.4.1.8. Stage 8: Optimise questionnaire length

The final stage of the questionnaire development process involved refining and optimising the questionnaire length while also ensuring enough clarity and instruction. The key task at this stage was

to optimise the questionnaire content and clarity of items. The questionnaire was amended based on the feedback from the adolescents who participated in the pilot of the questionnaire and focus groups as described in *Stage 6*, in addition to the feedback from the researcher's supervisory team and further consultation with new relevant literature.

3.4.2. Final quantitative measures

The final developed TAADVA questionnaire consisted of eight separate sections and 323 items (Appendix 10). This was administered in addition to five other instruments measuring physical ADVA (VDRS/PDRS; Appendix 11), controlling ADVA (CBS; Appendix 12), attachment (ECR-RS; Appendix 13), and a CSDS (Appendix 7). A relationship closeness measure (URCS) was also integrated into the TAADVA instrument within the dating experiences section (Section 2). The refined sections of the questionnaire and additional scales are outlined below.

3.4.2.1. TAADVA instrument

3.4.2.1.1. Section 1: Demographics

This section asked respondents to provide information on demographic details and included five items regarding their gender, age, school year, ethnicity and parental marital status. Respondents are required to circle their answer from a list of options.

3.4.2.1.2. Section 2: Dating experience

A definition of a dating relationship was provided that was adapted from the 'Love is Respect' (n.d.) support website and refined following the findings from the pilot study:

“Dating’ is a term used to describe when two people are in a romantic relationship. Most young people describe this as “going out” and refer to a dating partner as a ‘girlfriend’ or ‘boyfriend’. The relationship may be sexual, but it does not have to be’.

This section included 12 items measuring the onset, frequency and intensity of adolescent experiences of dating relationships. The first five items require a dichotomous (yes/no) response and asked respondents if they have ever had a girlfriend/boyfriend, if they currently have a girlfriend/boyfriend, whether they have had a girlfriend/boyfriend in the last 12 months, whether they

have ever met a girlfriend/boyfriend online, and whether they met their current or most recent girlfriend/boyfriend online. The next seven items require respondents to choose an answer from a list of options, for example, 'how often do you see your current or most recent girlfriend or boyfriend outside of school?' (e.g. less than once a month, once a month, once a fortnight, once a week, several times a week, and every day). Other questions included how old the respondent was when they started dating, how many relationships they have had, how old their current or most recent girlfriend/boyfriend was, the length of this relationship, the time since their most recent dating relationship if not currently in one, and how long they usually spend with their current or most recent girlfriend or boyfriend when they see each other.

3.4.2.1.3. Relationship closeness scale

Respondents were asked to answer the 12-item URCS (Dibble et al. 2012) regarding their perceived relationship closeness (e.g. whether they think their relationship was close, whether they missed their girlfriend or boyfriend when apart, whether they tell important personal things to their girlfriend or boyfriend, and whether they have a strong connection with their girlfriend or boyfriend) measured on a scale from 1 (*strongly disagree*) to 2 (*strongly agree*).

The theoretical rationale for including this scale was informed by previous findings that relationship seriousness may be indirectly (Cleveland, Herrera, and Stuewig 2003) and directly (O'Keefe 1997) related to adolescents' experiences of ADVA. The pilot study of this research (Stonard et al. 2015; Appendix 3) also found that some adolescents who perceived their relationships to be relatively distant, often felt or described more obsessive and controlling feelings and behaviours in relationships that warrants further investigation. This scale was therefore included in order to explore whether factors such as relationship closeness are related to adolescents' experiences and use of TAADVA. The practical rationale for the inclusion of this measure was that the scale appears to be an efficient, reliable, relatively short measure that would be appropriate to adolescents, and due to limited other available measures to assess this factor among adolescents specifically. Each additional measure was selected according to these criteria. This scale was evaluated on a sample of college students ($M = 20.2$ years) that, while not an adolescent sample, was the closest representation and most appropriate measure found and accessible to the researcher at the time of data collection (Dibble et al. 2012). This

12-item measure's Cronbach's alpha score for this study was $\alpha = .96$, suggesting high internal consistency.

3.4.2.1.4. Definitions

Definitions are provided for cyberbullying, hurtful cyber-teasing, online harassment, ADVA/TAADVA, and the ECTs identified in the questionnaire in order to provide adolescents with descriptions of the types of behaviours measured in the following sections.

3.4.2.1.5. Section 3: TAADVA victimisation

This section asks respondents to rate on a scale in terms of frequency from 1 (*never*), 2 (*at least once*), 3 (*monthly*), 4 (*fortnightly*), 5 (*weekly*), 6 (*daily*), to 7 (*hourly*), how often they have experienced 12 TAADVA behaviours in the previous 12 months from a current or recent girlfriend/boyfriend. Respondents are required to rate their experience of each behaviour for nine different ECTs (phone call, text, social networking sites, instant messenger, picture message, video chat, email, chatroom, and website/blog). The 12 TAADVA behaviour items include: (1) insulting, mean or hurtful comments; (2) comments or acts that were intended to embarrass, humiliate or shame a girlfriend or boyfriend; (3) sharing a girlfriend or boyfriend's personal information or pictures; (4) threatening comments or behaviours that were intended to threaten harm, intimidate or bully; (5) checking behaviours (e.g. contact to check a girlfriend/boyfriend's whereabouts, what they are doing, and who they are with); (6) pressure to engage in sexual acts or to send messages or pictures that were not wanted; (7) being sent sexual or inappropriate messages or pictures that were not wanted; (8) checking messages, contact histories or friend lists and networks; (9) demanding passwords to check messages, contact histories or friend lists and networks; (10) deleting, or removing contacts (e.g. friends and ex-partners); (11) making a partner feel afraid not to respond to a call, text or message etc.; and (12) prevention of ECT use or from talking to others. This means that for each behaviour item, there are nine methods through which this behaviour may be experienced, with a total of 108 items across the 12 behaviours. The 12 TAADVA behaviour questions had Cronbach's alpha scores which ranged from $\alpha = .91-.97$ for this study, suggesting high internal consistency.

3.4.2.1.6. Section 4: TAADVA instigation

This section asks respondents to rate on a scale in terms of frequency from 1 (*never*) to 7 (*hourly*), how often they have instigated the same 12 categories of TAADVA behaviours identified in Section 3 (Section 3.4.1.2.5) toward a current or recent girlfriend/boyfriend in the previous 12 months. The 12 TAADVA behaviour questions had Cronbach's alpha scores which ranged from $\alpha = .86-.99$ for this study, suggesting high internal consistency.

3.4.2.1.7. Section 5: Friend involvement in ADVA/TAADVA

This section includes 20 items regarding the participant's awareness of historical (10 items) and current (10 items) TAADVA (sexual and non-sexual) and ADVA (physical, psychological/emotional and sexual) victimisation and instigation within their peer networks (10 items each for victimisation and instigation). Five response categories range from 0 (*none*), 1 (*one friend*), 2 (*two friends*), 3 (*three friends*), to 4 (*more than three friends*). Respondents were asked for example, 'how many friends or people you know have told you that they have ever received cyberbullying, cyber-harassment or controlling behaviour via ECT from a boyfriend or girlfriend?'. The Cronbach's alpha scores for each of the four subsections of this section (i.e. friend historical and current TAADVA victimisation and instigation) ranged from $\alpha = .88-95$, suggesting high internal consistency.

3.4.2.1.8. Section 6: Impact of TAADVA

This section includes 24 items regarding the impact of the respondents' victimisation (12 items) or instigation (12 items) of TAADVA and requires respondents to respond to a series of statements on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Participants were asked questions regarding whether their experience and/or instigation impacted on them emotionally, educationally and whether it had an impact on their relationship. Contextual data regarding the impact (Section 6), response (Section 7) and result (Section 8) of TAADVA were sought to gain background information on these matters, however these latter sections were not included in the main analysis following the refinement of the research aims and questions but are summarised in Appendix 5.

3.4.2.1.9. Section 7: Response to TAADVA

This section included 22 items regarding the participants' responses to experiencing and/or instigating TAADVA and includes 11 items for each victimisation and instigation. Participants are asked to respond to a series of statements in terms of frequency from 1 (*never*), 2 (*once*), 3 (*sometimes*), to 4 (*always*), regarding how often they engaged in a range of responses/actions provided. These statements referred to responses including non-aggressive response via a mobile or online, aggressive retaliation via a mobile or online, mobile or online action to block the individual, face-to-face non-aggressive confrontation, face-to-face aggressive confrontation, whether they told someone about the incident(s) and whether they did not respond/no action taken. Respondents were also asked whom they/their partner were most likely to tell about their experience and/or instigation of the TAADVA behaviours.

3.4.2.1.10. Section 8: Outcome following TAADVA

This section included 12 items (six for victimisation and six for instigation) regarding the outcome of the respondent's experience and/or instigation of TAADVA. Participants are asked to rate a number of statements in terms of frequency from 1 (*never*), to 4 (*always*), how often they engaged in a range of responses provided. These statements referred to outcomes including whether the situation was resolved, smoothed over, resulted in verbal face-to-face aggression, resulted in physical face-to-face aggression, whether the relationship broke up as a result of the incident(s), and whether the relationship was made better as a result of the incident(s).

3.4.2.2. ECR-RS

The ECR-RS questionnaire (Fraley et al., 2011) was included in order to assess the relationship between TAADVA and adolescent attachment style characteristics (i.e. anxiety and avoidance; Appendix 13). This includes 36 items, nine for each of the relationships for which attachment is measured (i.e. mother, father, dating partner, and friend). These items asked respondents for example, whether they discuss their problems and concerns with each person, whether they find it easy to depend on each person, whether they feel comfortable opening up to each person and whether they fear these people may abandon them or not care for them. Participants are asked to rate their responses on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The first six items make up the

avoidant attachment scale whereby higher scores suggest that respondents are more securely attached (two of these items are reversed scored). The last three items make up the anxious attachment scale where higher scores suggest that respondents are more insecurely attached.

The theoretical rationale for including this scale was informed by the findings of the reviews of the theoretical and empirical literature in Chapter 2 and the qualitative paper from the pilot study (Stonard et al. 2015; Appendix 3), which found that attachment style characteristics may play a role in ADVA/TAADVA. This scale was therefore included in order to explore whether factors such as anxious and avoidant attachment are related to adolescents' experiences of TAADVA and ADVA. While the ECR-RS questionnaire (Fraley et al. 2011) was evaluated with a large sample, this was not an adolescent sample. This Cronbach's alpha score was $\alpha = .87$ for the avoidant attachment scale and $\alpha = .91$ for the anxious attachment scale for this study, suggesting high internal consistency.

3.4.2.3. VDRS and PDRS

The VDRS and PDRS (Foshee et al. 1996) were included in order to assess whether there is a relationship between TAADVA and physical ADVA (Appendix 11). Respondents are asked how often they have instigated or experienced 15 types of physical ADVA behaviours in the last 12 months (e.g. scratching, slapping, kicking, biting, choking, punching and more serious behaviours such as assaulting with a weapon). Response options range from 0 (*never*), 1 (*1-3 times*), 2 (*4-9 times*), to 3 (*10 or more times*). As physical ADVA is associated with own TAADVA victimisation and instigation (Cutbush et al. 2010, 2012, Dick et al. 2014, Epstein-Ngo 2014, and Zweig et al. 2014a), this scale was included in order to explore whether factors such as traditional physical ADVA are related to adolescents' experiences and use of TAADVA. The VDRS and PDRS (Foshee et al. 1996) has been evaluated on an adolescent sample and widely used in other studies (Swahn et al. 2008a, Swahn et al. 2008b and Windle and Mrug 2009). This was therefore deemed an appropriate measure. The Cronbach's alpha score for the 15-item VDRS measure was $\alpha = .94$ and $\alpha = .96$ for the PDRS measure in this study, suggesting high internal consistency.

3.4.2.4. CBS

The CBS (Graham-Kevan, and Archer 2003) was included in order to assess whether there is a relationship between TAADVA and traditional controlling and emotional ADVA (Appendix 12).

This measure was originally developed and used with adults and was derived from the Power and Control Wheel (Pence and Paymar 1993). This was amended slightly in order to reflect the age of the adolescent participants. The scale included 12 items for each victimisation and instigation using four of the five original subscales. Respondents are asked how often they have used or experienced 12 types of controlling behaviours in the last 12 months (e.g. making threats to harm or leave a partner, using looks, actions, and/or gestures to change a partner's behaviour, putting a partner down, humiliating a partner, and restricting the amount of time a partner spends with friends or family). Response options range from 0 (*never*), 1 (*hardly ever*), 2 (*sometimes*), 3 (*often*), and 4 (*very often*).

The theoretical rationale for including this scale was informed by the findings of the reviews of the theoretical and empirical literature in Chapters 1 and 2, which found that psychological ADVA was associated with self-reported TAADVA (Cutbush et al. 2010, 2012, Dick et al. 2014, Epstein-Ngo et al. 2014 and Zweig et al. 2014a). It has been identified that further research is needed to explore whether TAADVA is experienced as a unique form of abusive behaviour or as a continuum of abuse in both the online and offline environments. This scale was therefore included in order to explore whether controlling ADVA is related to adolescents' victimisation and/or instigation of TAADVA. Although the CBS (Graham-Kevan and Archer 2003) has yet to be evaluated on an adolescent sample, the Cronbach's alpha score for the 12-item CBS measure in this thesis was $\alpha = .96$ for victimisation and $\alpha = .94$ for instigation, suggesting high internal consistency.

3.4.2.5. CSDS

The CSDS was administered along with the TAADVA instrument and additional measures. This consisted of 14 items that required participants to respond in a true/false format. For example, 'I have never felt like saying unkind things to another person?'. The rationale for this measure is outlined in more detail in *Stage 5* of scale development section of this chapter (Section 3.4.1.5; Appendix 7).

3.5. Procedure

3.5.1. Ethical Approval

Once ethical clearance was granted from Coventry University's Ethics Committee (Appendix 14), the researcher emailed and/or phoned secondary schools and youth clubs to seek gatekeeper approval to recruit participants, in addition to recruiting participants via snowballing methods.

Gatekeeper consent was gained from three secondary schools and seven youth clubs. Parents/guardians were informed about the research by letter and were asked to withdraw their children if they did not wish for them to take part before the researcher met the eligible adolescent participants. The researcher liaised with the gatekeepers from each secondary school and youth club (and parents/guardians in the snowballing sample) to arrange a convenient time to conduct the questionnaire.

3.5.2. General procedures

The TAADVA questionnaire and five additional scales were administered in the same way in all three settings (i.e. the school, youth club and the snowballing sampling methods) using the same introductions, instructions, delivered by the same person, with the same process. The study was introduced to the young people in their classroom settings at school, at the youth club or at one of the participants' family member's homes. Participants were informed of the nature of the study, why they had been approached (i.e. because they were 12-18 years old), and what their participation would involve. They were reminded that their participation was voluntary, that they could withdraw at any point with no consequences and were given opportunity to ask questions before deciding to take part in the study. They were also reminded that their participation would be kept confidential and that any information used would be anonymous. The participants were informed however, that if during the data collection session they disclosed that they were at risk of immediate harm, then the information would be passed on to the appropriate professionals. Respondents were asked to complete the questionnaire on their own privately, in order to ensure participants felt comfortable to answer honestly. Participants were also provided with the opportunity to review, check and amend their responses at the end of the data collection session before handing the questionnaires back to the researcher. While the procedures followed were administered consistently across samples, a teacher/youth club worker was present in the room during the school/youth club settings and a family member was present in the home but in a different room/part of the house during the snowballing sessions as with the pilot study. In addition, the youth club and snowballing sessions tended to be in the evening and in a more informal environment and could have influenced participation rates and reporting levels. The potential implications of the different samples and methodology are considered in more detail in Chapter 7.

The questions were administered to participants as a pencil-and-paper self-report questionnaire. Each participant was given a unique participant information sheet, reference code and

consent form that were stored separately from the questionnaire data to ensure anonymity. Respondents were told to keep this information sheet and make note of their unique code should they wish to withdraw their data from the study up to two weeks following the data collection session. It took approximately 30-50 minutes (one class session) for participants to complete the questionnaire and once completed, they handed their questionnaire back to the researcher. Participants were then debriefed and given details for further information and support on the topics discussed. Once data collection was completed, all questionnaires and corresponding consent forms were stored in a secure room and on a secure (password protected) computer/laptop. Following data input, only the SPSS data file was kept (stored in the safe locations mentioned above). All paper copies of completed questionnaires and consent forms were destroyed.

3.6. Analytical Strategy

The questionnaire item responses were inputted into the data analysis software SPSS (version 22) in preparation for statistical analysis. Once the data had been entered, initial analysis began by examining the distributional characteristics of the data, item variability and patterns of missing data. Systematic missing data was subsequently excluded from the analysis. Data screening of non-categorical variables revealed that the data breached assumptions of linearity, homogeneity and/or Box's test of normality. Log, Square Root, and Reciprocal Transformations were attempted, however these assumptions were still violated meaning parametric tests could not be performed (Field 2009).

In Chapter 4 (Research Question 1), an exploratory factor analysis was conducted on the TAADVA victimisation and instigation questions in order to examine whether the variables measured were related (i.e. the nature of TAADVA), and also to determine the extent to which ECT was relevant to TAADVA behaviours. Factor analysis is a procedure that is used to reduce a number of observed variables to a smaller number of factors that account for most of the variance of the observed variables (Smith and Weir 2007). It was not possible to compute a factor analysis for the TAADVA instigation questions due to low variability in responses and a determinant score of zero. The original 12 TAADVA behaviours are therefore reported on for the subsequent analyses. Following this, the prevalence of the 12 TAADVA behaviours by any ECT and controlling and physical ADVA victimisation and instigation for the total sample, males and females are reported. Chi-square tests were used to compare the prevalence of TAADVA and ADVA by gender. Following this, descriptive

statistics and Chi-square or Fisher's Exact tests are reported to examine the overlap between male and female adolescents' experiences of TAADVA/ADVA victimisation and instigation and the overlap between TAADVA and ADVA. Fisher's Exact tests were used as opposed to Chi-square tests when sample sizes were low (i.e. when more than 20% of expected counts were below five (Field 2009)).

In Chapter 5 (Research Question 2), Kruskal-Wallis comparison tests were used in order to examine the relationship between TAADVA involvement as a: (1) victim, (2) instigator, (3) instigator-victim), and (4) none, on 13 factors of interest identified to be potential correlates of ADVA/TAADVA. Following the findings from Research Question 1 (Chapter 4), this was changed to: (1) victim, (2) instigator-victim, and (3) none due to the nature of the data collected. Following this, post hoc Mann-Whitney tests were conducted in order to investigate where any significant differences were (i.e. between TAADVA victims only, and instigator-victims and non-TAADVA involved youth). The 13 factors of interest included: global anxious and avoidant attachment (x2), friend historical and current TAADVA victimisation and instigation (x4), controlling ADVA victimisation and instigation (x2), physical ADVA victimisation and instigation (x2), relationship closeness (x1), age difference of dating partner (x1), and age (x1). Once again, Bonferroni corrections for multiple analyses were used for the Mann-Whitney tests. Following this, multinomial logistic regression was used to examine which of these significant correlates of TAADVA independently predicted TAADVA group membership (i.e. victim only or instigator-victim) for males and females. A multinomial logistic regression was chosen as the method of analysis due to the outcome variable being categorical and the predictor variables being either continuous or categorical (Field 2009). The default 'enter' method of logistic regression was used in which all predictor variables were placed into the regression model in one block before calculating parameter estimates (Field 2009). The findings are reported for adolescents who had past year dating relationship experience and who had completed all necessary sections of the questionnaire (as with Chapters 4 and 6).

Before conducting the analysis, the 12 TAADVA victimisation and instigation items were combined into a new outcome variable of TAADVA experience (i.e. none; victim only; and instigator-victim), coded as 0, 1, and 2 respectively. The physical ADVA items (VDRS/PDRS) were combined into two new variables for physical ADVA victimisation and instigation, as was done for the controlling behaviour measure (CBS). Two new variables were defined for the attachment measure (ECR-RS), a global anxious attachment variable and a global avoidant attachment variable (assessing

attachment to parents, friends, and dating partners). This was also done for the relationship closeness scale (URCS) to create one global variable. Age of dating partner and age remained the same. An exploratory factor analysis was also performed on the friend ADVA/TAADVA victimisation and instigation questions prior to this in order to examine whether the variables could be reduced into related factors in preparation for the subsequent analyses (Appendix 15). This revealed some interesting findings; that friend historical and current experiences of instigation of all five types of abusive behaviour (non-sexual and sexual TAADVA, and physical, psychological and sexual ADVA) were uniquely loaded onto one factor (friend instigation experience) and friend historical experience of victimisation of all five types of abusive behaviour was also loaded on a second factor. The friend current experience of victimisation of all five types of abusive behaviour loaded on both of these victimisation and instigation factors (.571). Including these two factors as predictors within the subsequent analysis was considered however, this would mean that the individual type of violence experienced by respondents' friends and whether this was historical abuse or current abuse would not be identifiable. Therefore, it was decided to combine the non-sexual and sexual TAADVA friend experience items for each 'historical', 'current', and 'victimisation', and 'instigation', creating four new variables for the analysis in Chapter 5. This could not be done for the other three behaviour types (friend physical, psychological, and sexual ADVA) as this would result in a need for restrictive corrections for multiple analyses due to the increased number of predictor variables.

In Chapter 6 (Research Question 3), a series of Mann-Whitney comparison and Spearman's Rho correlation tests were conducted to examine the relationship between friend dating violence (ADVA and TAADVA combined) and self-reported TAADVA and ADVA (controlling and physical combined); between avoidant and anxious attachment to parents, friends, and partners and TAADVA and ADVA; between friend dating violence and avoidant and anxious attachment; and between attachment to parents, attachment to friends, and attachment to partners. The TAADVA and ADVA variables were both recoded in terms of the type of involvement (i.e. none and instigator-victim), in order to compare these two groups due to this type of involvement representing the most predominant group and due to the small number of adolescents in the victim only and instigator only groups (see Chapter 4 for TAADVA, Table 4.11; and Chapter 6 for ADVA, Table 6.1). These initial analyses are conducted for TAADVA and ADVA and males and females separately. Following this, mediation analysis and backwards stepwise binary logistic regression were then used to examine potential

mediating relationships of avoidant and anxious attachment on the relationship between friend dating violence and self-reported TAADVA and ADVA where significant associations were found (for females only) in the initial analysis in the chapter. This was conducted to assess whether friend dating violence and attachment was each independently associated with self-reported TAADVA and ADVA or whether attachment mediated the relationship between friend dating violence and self-reported TAADVA and ADVA, and whether such factors are similarly related to TAADVA and ADVA.

3.7. Conclusion

This methodology chapter has described the research design, sampling procedure, participants, questionnaire development, additional measures, data collection procedure, the analytical strategies used to examine the three research questions, and the rationale for employing such methodologies. The next three chapters of the thesis contain the results from the empirical studies. Chapter 4 includes the results from the analysis of the nature, prevalence, roles (i.e. victim and/or instigator), and overlap of TAADVA and ADVA. Chapter 5 considers the correlates of TAADVA. Finally, Chapter 6 reports the findings from the analysis of the role of attachments to parents, friends, and partners on the relationship between friend dating violence and self-reported TAADVA and ADVA.

Chapter 4: The Nature, Prevalence, and Overlap of Technology-Assisted and Traditional Adolescent Dating Violence and Abuse

4.1. Introduction

In Chapter 1 it was argued that there exists limited UK data regarding Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA) and that current measures vary in their comprehensiveness and consistency. Some of these issues are addressed in this chapter by presenting the findings from research that has utilised the new set of TAADVA questions (detailed in Chapter 3) including 12 TAADVA behaviours via nine Electronic Communication Technology (ECT) methods, in addition to existing measures of traditional controlling and physical Adolescent Dating Violence and Abuse (ADVA) in the past 12 months. This chapter therefore address the first research question developed regarding the nature and prevalence of TAADVA. This question comprises four specific parts: (a) What is the nature of ECT used in TAADVA; (b) What is the prevalence of TAADVA and ADVA?; (c) What role of involvement do adolescents have in TAADVA and ADVA?; and (d) What is the extent of the overlap between TAADVA and ADVA?

Sixteen studies, 13 international (see Chapter 1; e.g. Cutbush et al. 2012, Dick et al. 2014, Epstein-Ngo et al. 2014, Picard 2007, and Zweig et al. 2013b) and only three which included British adolescents (Barter et al. 2009, Barter et al. 2015a and Fox et al. 2014), have investigated TAADVA and reported prevalence rates of TAADVA victimisation between 10-56% and instigation between 7-54%. These studies vary in the number of TAADVA behaviours measured with some being more comprehensive than others in distinguishing between different types of abuse. Only two studies distinguished between specific methods of ECT through which adolescents experienced and/or instigated TAADVA (Draucker and Martsof 2010 and Korchmaros et al. 2013). For example, Draucker and Martsof (2010) examined adolescents' retrospective experience of TAADVA via phone call, text message, social networking sites, email, websites and key-loggers, and Korchmaros et al. (2013) looked at instigation experiences offline, online, via phone call and text message. Some researchers suggest that mobile phones are particularly relevant to TAADVA due to the constant access adolescents have to such communication tools (Korchmaros et al. 2013). Zweig et al. (2013b) found

social networking sites to be the most frequently reported method used in TAADVA. However, little is known about the nature of British adolescents' experiences of TAADVA behaviours and whether ECT use varies depending on the TAADVA behaviour. Consequently, this chapter aims to explore this issue using the most comprehensive TAADVA questionnaire that has been developed to date.

Due to the comparative lack of British TAADVA research (and a lack of research examining gender differences in TAADVA), the second aim of this chapter was to explore the prevalence of male and female adolescents' experience and instigation of past year TAADVA using this comprehensive questionnaire developed (Chapter 3; Section 3.4.2.1.5), in addition to examining controlling and physical ADVA. Barter et al. (2009) found that prevalence rates of TAADVA for females were higher than that for males, specifically for receiving humiliation and threats via ECT (12% vs. 4%), and being checked up on via a mobile phone and/or the Internet (42% vs. 29%). In addition, Zweig et al. (2013b) identified that females were more likely to report experiencing (23% vs. 21%) and instigating (13% vs. 7%) non-sexual forms of TAADVA and experiencing sexual forms of TAADVA (15% vs. 7%), while males were more likely to instigate sexual TAADVA (4% vs. 2%). Dick et al. (2014) also found that more female than male respondents reported non-sexual (40% vs. 29%) and sexual (14% vs. 9%) TAADVA victimisation, particularly in relation to repeatedly contacting a partner to see where they were or whom they were with. Conversely, Korchmaros et al. (2013) found no significant gender differences with regards to adolescents' instigation of psychological TAADVA.

It has been identified that adolescents experience ADVA as both a victim and an instigator (Bossarte, Simon, and Swahn 2008, Fernández-Fuertes and Fuertes 2010, Giordano et al. 2010 and Zweig et al. 2013b). However, research regarding the potential overlap of instigator-victim roles is limited with regards to TAADVA. Zweig et al. (2013b) found that the majority (around two-thirds) of TAADVA victims were not also instigators, although almost two-thirds of instigators also reported being victims. It is not known whether this varies by gender, the type of TAADVA (e.g. non-sexual and sexual) or how this applies to a sample of British adolescents. Consequently, this forms the basis of the third aim addressed in this chapter.

Finally, while physical, psychological, and/or sexual ADVA have been identified as correlates of TAADVA in seven studies in the US (Cutbush et al. 2012, Dick et al. 2014, Epstein-Ngo et al. 2014 and Zweig et al. 2013b), it is not known whether the use of ECT creates new victims and/or instigators

of TAADVA separate from offline ADVA. The fourth and final aim addressed in this chapter was therefore to explore the overlap between TAADVA and controlling and physical ADVA.

4.1.1. Hypotheses

Specifically, it was expected that:

- *Hypothesis 1: The nature of TAADVA behaviours experienced will vary by ECT.*
- *Hypothesis 2: TAADVA and ADVA will be evident in adolescent romantic relationships and there will be a significant difference in prevalence by gender dependent on the nature of ADVA and TAADVA reported. It is expected that females will report more non-sexual and sexual TAADVA victimisation than males. Males will report more sexual TAADVA instigation than females. Females will report more non-sexual TAADVA instigation than males. Female adolescents will report more controlling ADVA victimisation and instigation and physical ADVA instigation than males. Males will report more physical ADVA victimisation than females.*
- *Hypothesis 3: There will be an overlap between reported victimisation and instigation of TAADVA/ADVA with those who experience TAADVA being more likely to also report instigating TAADVA, and those who report experiencing ADVA will be more likely to also report instigating ADVA. In terms of sexual TAADVA specifically, it is expected that females will experience more victimisation only than males, and males will report more instigation only than females.*
- *Hypothesis 4: There will be an overlap between TAADVA and ADVA experience such that those who report experiencing and/or instigating TAADVA will be more likely to report experiencing and/or instigating ADVA.*

4.2. Method

4.2.1. Design

A cross-sectional between subjects correlational design was used in this study.

4.2.2. Participants

Participants were 469 adolescents (52% female, $n = 245$) aged 12-18 years old (male and female: $M = 13.9$, $SD = 1.27$). The majority (80%) of the sample was aged 13-14 years old. Participants were recruited from secondary schools, youth clubs or other settings (i.e. via snowballing) in the Midlands area of England. The majority of the sample stated their ethnicity as White (88%).

4.2.2.1. Characteristics of adolescent dating relationships

Contextual data was collected in order to understand the onset, nature and intensity of the adolescent respondents' dating experiences.

4.2.2.1.1. Dating experience

The majority (81%) of adolescents reported having ever had a romantic relationship with a girlfriend or boyfriend (Table 4.1), a figure comparable, although slightly lower to previous research in the UK (83-88%; Barter et al. 2009, Fox et al. 2014 and Schütt 2006).

Table 4.1
Prevalence of adolescent dating experience ($n = 469$)

	Total % (n)	Male % (n)	Female % (n)
Ever had a girlfriend or boyfriend	81.2 (381)	80.4 (180)	82.0 (201)
Currently have a girlfriend or boyfriend	17.5 (82)	17.0 (38)	18.0 (44)
Had a girlfriend or boyfriend in the last 12 months	59.1 (277)	53.6 (120)	64.1 (157)
Ever met a girlfriend or boyfriend online	12.8 (60)	13.8 (31)	11.8 (29)
Met current or most recent girlfriend or boyfriend online	4.7 (22)	6.3 (14)	3.3 (8)

Fewer than one in five reported being currently in a dating relationship and over half of adolescents reported past year dating experience. Having met a dating partner online was less frequent with just over one in ten adolescents reporting ever doing this. A Pearson Chi-square test revealed that there was not a significant relationship between gender and having ever had a dating relationship ($\chi^2(1, 469) = .22$, $p > .05$, $OR = .90$), being currently in a dating relationship ($\chi^2(1, 469) = .08$, $p > .05$, $OR = .93$), having ever met a dating partner online ($\chi^2(1, 469) = .42$, $p > .05$, $OR = 1.20$), or meeting their latest dating a partner online ($\chi^2(1, 469) = 2.33$, $p > .05$, $OR = 1.98$). There was a significant relationship

between gender and having had a dating relationship in the last 12 months ($\chi^2(1, 469) = 5.35, p < .05, OR = .65$). Of those adolescents who had dated in the last 12 months, 43% were male and 57% were female. Based on the odds ratio, the odds of adolescents having dated in the last 12 months were 0.65 times higher for females than for males. The following analyses in this chapter and in Chapters 5-6 is based on the 59% ($n = 277$) of adolescents who had past year dating experience.

4.2.2.1.2. Onset of dating experience

For adolescents with past year dating experience, the most common age of dating onset was at the age of 12 years old (Table 4.2). A Mann-Whitney test revealed that the median age of dating onset for females ($Mdn = 11.00$) did not significantly differ from the median for males ($Mdn = 11.00$), $U = 8171.00, z = -1.917, p > .05, r = -0.12$ (two-tailed).

Table 4.2
Onset of adolescent dating ($n = 277$)

	Total % (n)	Male % (n)	Female % (n)
Age <7	14.4 (40)	17.5 (21)	12.1 (19)
Age 8	6.1 (17)	10.0 (12)	3.2 (5)
Age 9	5.4 (15)	5.8 (7)	5.1 (8)
Age 10	11.6 (32)	11.7 (14)	11.5 (18)
Age 11	15.5 (43)	11.7 (14)	18.5 (29)
Age 12	24.9 (69)	24.2 (29)	25.5 (40)
Age 13	14.1 (39)	12.5 (15)	15.3 (24)
Age 14	4.7 (13)	4.2 (5)	5.1 (8)
Age 15	1.4 (4)	0.0 (0)	2.5 (4)
Age 16	0.4 (1)	0.0 (0)	0.6 (1)
Age 17	1.4 (4)	2.5 (3)	0.6 (1)

4.2.2.1.3. Number of dating relationships

Over 80% of adolescents reported having more than one romantic relationship experience in the past year (Table 4.3). A Pearson Chi-square test revealed that there was not a significant

relationship between gender and the number of dating relationships adolescents have had ($\chi^2(4, 273) = 8.48, p > .05$, Cramer's $V = .18$).

Table 4.3
Number of dating relationships since dating onset ($n = 273$)

	Total % (n)	Male % (n)	Female % (n)
1 relationship	12.8 (35)	12.8 (15)	12.8 (20)
2-3 relationships	33.3 (91)	26.5 (31)	38.5 (60)
4-5 relationships	25.3 (69)	29.1 (34)	22.4 (35)
6-9 relationships	11.7 (32)	9.4 (11)	13.5 (21)
10 or more relationships	16.8 (46)	22.2 (26)	12.8 (20)

4.2.2.1.4. Age of current or most recent dating partner

Nearly three-quarters of adolescents with past year dating experience reported that their current or most recent dating partner was roughly the same age (i.e. same school year group) as them (Table 4.4).

Table 4.4
Age difference of current or most recent dating partner ($n = 272$)

	Total % (n)	Male % (n)	Female % (n)
More than 2 years younger	1.1 (3)	2.6 (3)	0.0 (0)
1-2 years younger	5.5 (15)	6.0 (7)	5.2 (8)
Roughly the same age	72.8 (198)	81.2 (95)	66.5 (103)
1-2 years older	15.4 (42)	7.7 (9)	21.3 (33)
More than 2 years older	5.1 (14)	2.6 (3)	7.1 (11)

A Pearson Chi-square test revealed that there was a significant relationship between gender and the age of adolescents' current or most recent dating partner ($\chi^2(4, 272) = 16.69, p < .001$, Cramer's $V = .25$). Post hoc analysis revealed that significantly fewer males (21.4%) reported having a partner 1-2 years older than themselves than did females (78.6%, $z = -2.13, p = .03$), indicating that females were more likely to have older partners.

4.2.2.1.5. Length of current or most recent dating relationship

As expected, the adolescents reported relatively short-term romantic relationships with their current or most recent dating partner (Table 4.5). A Pearson Chi-square test revealed that there was not a significant relationship between gender and the length of adolescents' relationships ($\chi^2(4, 274) = 1.42$, $p > .05$, Cramer's $V = .07$).

Table 4.5
Length of current or most recent dating partner ($n = 274$)

	Total % (n)	Male % (n)	Female % (n)
1-4 weeks	30.7 (84)	31.4 (37)	30.1 (47)
1-3 months	29.2 (80)	26.3 (31)	31.4 (49)
3-6 months	16.1 (44)	16.9 (20)	15.4 (24)
6-12 months	11.7 (32)	13.6 (16)	10.3 (16)
More than a year	12.4 (34)	11.9 (14)	12.8 (20)

4.2.3. Measures

4.2.3.1. Dating experience

Dating experience was measured with 12 items regarding the onset, frequency and intensity of adolescent experiences of dating relationships (see Chapter 3 for detailed descriptions of all measures). Nine of these are reported in this chapter (Section 4.2.2.1) and the other three are summarised in Appendix 16. The first five items are dichotomous (yes/no) and ask whether respondents have experience of dating and online dating. The other seven items required respondents to choose an answer from a list of categorical response options (Appendix 10).

4.2.3.2. TAADVA and ADVA victimisation and instigation

The TAADVA questionnaire designed to measure the nature and prevalence of TAADVA in the last 12 months included 108 items regarding 12 TAADVA behaviours by nine methods of ECT for victimisation and instigation (Appendix 10). Respondents were required to answer the frequency of these behaviours on a scale ranging from 1 (*never*), 2 (*at least once*), 3 (*monthly*), 4 (*fortnightly*), 5 (*weekly*), 6 (*daily*), to 7 (*hourly*). Controlling and physical ADVA was measured using Graham-Kevan

and Archer's (2003) Controlling Behavior Scale (CBS) and Foshee et al. (1996) Victimization and Perpetration in Dating Relationships Scales (VDRS/PDRS).

4.2.3.3. Children's social desirability

Social desirability was measured using a 14-item Children's Social Desirability Scale (CSDS) with a 'true/false' response format (Baxter et al. 2006).

4.2.4. Procedure

The adolescents completed a self-report questionnaire during school in a classroom, at a youth club, or other home setting through the snowballing methods. A more detailed outline of the procedure is given in Chapter 3.

4.2.5. Analytical strategy

To address Hypothesis 1, an exploratory factor analysis was conducted on the 108-item TAADVA victimisation questionnaire in order to investigate whether the 12 TAADVA behaviours and nine ECTs were related in any way. This allowed the exploration of the relevance of the nine ECTs to adolescents' experience of the 12 TAADVA behaviours. The instigation questions had a determinant of zero (likely to be the result of low variability) and therefore, could not be analysed further. Subsequently, the original 12 TAADVA behaviour variables were used in the analyses in this chapter. These findings are used to contextualise the nature and significance of the ECT through which TAADVA is experienced. The descriptive statistics of the raw data from the 12 TAADVA behaviours by each of the nine ECTs is provided in Appendix 17. The prevalence, including gender differences of TAADVA and controlling and physical ADVA is reported using Pearson's Chi-square tests. Chi-square and Fisher's Exact tests were used where appropriate to examine the overlap between victimisation and instigation experiences of TAADVA and ADVA in addition to the overlap between TAADVA and ADVA. For example, Fisher's Exact was used when more than 20% of expected cell counts were below five (Field 2009).

4.3. Results

4.3.1. Data screening and correlations with social desirability

A summary of the mean, standard deviations, range, and correlations with social desirability for the dating experience and TAADVA/ADVA victimisation and instigation questions is provided in Appendices 18-19. The appropriate Bonferroni corrections were applied to correct for multiple comparisons (.05/7 = .007 for the dating experience questions and .05/9 = .006 for TAADVA behaviours). Three significant associations (two positive and one negative) with social desirability were found for the dating experience questions for females and two significant (negative) correlations with social desirability were found for the controlling ADVA victimisation and instigation variables for males (Table 4.6).

Table 4.6
Significant correlations with social desirability for males and females

Section Question	Male		Female		z- score	p value (2-tailed)
	Pearson <i>r</i> / Spearman <i>r_s</i>	<i>n</i>	Pearson <i>r</i> / Spearman <i>r_s</i>	<i>n</i>		
Dating experience						
Have you ever dated	.08	219	.26***	244	-1.984	1.953
Have you dated in the last 12 months	.00	219	.23***	244	-2.499	1.988
How often see partner outside of school	.02	115	-.23**	154	2.038	0.042*
Controlling ADVA						
Controlling ADVA victimisation	-.19*	115	-.14	152	-0.411	1.319
Controlling ADVA instigation	-.24*	115	-.16	154	-0.669	1.496

Note: *Correlation is significant at the .05 level; **.01 level; ***.001 level (2-tailed) Bonferroni corrected

The first two positive associations indicate that females were more likely to report that they had never dated or never dated in the last 12 months when they had. The third negative association indicates that females were more likely to underreport the amount of time they spent with their current or most recent dating partner. The final two negative associations indicate that males underreport their experience of controlling ADVA victimisation and instigation. Comparisons of z-scores showed significant differences between males and females for one of the five associations with social desirability; 'how often do you see your partner' ($p < .05$), suggesting that females were significantly more likely than males to underreport how often they see their partner.

4.3.2. The nature of TAADVA victimisation and instigation

Hypothesis 1: *The nature of TAADVA behaviours experienced will vary by ECT.* The raw data for each of the 12 TAADVA behaviours (victimisation and instigation) via the nine ECTs is provided in Appendix 17. As there were some clear patterns in the descriptive frequencies of the nine types of ECTs, a brief summary of these findings from the raw data is provided for context before presenting the findings from the exploratory factor analysis.

It was expected that the use of phone calls, text messages and social networking sites would be particularly relevant to TAADVA given the previous literature (Korchmaros et al. 2013, Draucker and Martsof 2010 and Zweig et al. 2013b). This appeared to be true for text messaging and social networking sites. There was a trend across 9/12 TAADVA behaviours (insults, sharing information, being checked up on, sexting/sexual pressure, having messages checked, demanded passwords, deleting contacts, feeling afraid to not respond, and prevention of ECT use) for text messaging to be the most prevalent form of ECT used in these experiences of victimisation. The three behaviours for which this was an exception were for being threatened (the most common method was via phone call), embarrassed and humiliated, and receiving unwanted sexting (in which the most common method was via a social networking site), although for the latter two behaviours this difference was marginal. The next most prevalently used ECT method was social networking sites, with 6/12 TAADVA behaviours being most commonly experienced via this method (insults, sharing information, checking messages, demanding passwords, deleting contacts, and prevention of ECT use). For the other six behaviours measured, the next most commonly used ECT was text message and phone call. The third most prevalent ECT used across the TAADVA behaviours was instant messenger and this was the case for 7/12 behaviours. For the five behaviours that did not follow this trend, the next most prevalent ECTs used were social networking sites (for threats and sexting pressure), phone call (for demanding passwords and deleting call contacts) and picture message (for unwanted sexting). There was a clear trend for email, chatroom and website/blog methods to consistently be the least prevalent forms of ECT through which adolescents' experienced TAADVA victimisation (and instigation) and with marginal differences in the prevalence of the use of such ECTs.

An exploratory factor analysis of the 108 TAADVA victimisation questions with oblimin rotation was conducted to explore whether the 12 TAADVA behaviours and nine ECTs were related or experienced as unique distinct behaviours and/or ECTs in isolation from one another. The Kaiser-

Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis, KMO = .83 (Kaiser 1974, cited in Field 2009: 647). An initial analysis was run to obtain eigenvalues for each factor in the data. Scree plots were used to determine the number of factors to extract and the main breakpoint occurred just prior to the ninth, so nine factors were extracted. These nine factors had eigenvalues over Kaiser's criterion <1 and in combination explained 73.9% of the variance. Factor loadings above .3 were used to interpret the factor structure (Field 2009). The pattern matrix factor loadings and factor correlation matrix are provided in (Appendix 20) and a summary of these nine factors is provided in Table 4.7.

Table 4.7

Factor loadings for the technology-assisted adolescent dating violence and abuse victimisation questions

Factor	Behaviour	<i>n</i> ^a	ECTs ^b
1	Demand password	9	PC; TM; IM; SNS; PM; VC; EM; CR; WB
	Unwanted sexting	4	WB; CR; EM; VC
	Sexual/sexting pressure	3	CR; EM; WB
	Threat	1	EM
2	Shared/distributed info	9	PC; TM; IM; SNS; PM; VC; EM; CR; WB
	Insults	5	CR; WB; EM; PM; VC
3	Checked messages	9	PC; TM; IM; SNS; PM; VC; EM; CR; WB
4	Deleted friends	9	PC; TM; IM; SNS; PM; VC; EM; CR; WB
	Prevention of ECT use	4	EM; CR; WB; VC
	Embarrass/humiliate	2	EM; WB
5	Afraid not respond	9	PC; TM; IM; SNS; PM; VC; EM; CR; WB
	Unwanted sexting	3	PC; SNS; IM
	Embarrass/humiliate	1	CR
6	Sexual/sexting pressure	6	TM; PM; SNS; VC; IM; PC
	Unwanted sexting	2	PM; TM
	Prevention of ECT use	5	PM; TM; IM; SNS; PC
7	Threats	8	SNS; IM; TM; PC; PM; CR; VC; WB
	Embarrass/humiliate	6	IM; TM; SNS; PC; PM; VC
8	Contact to check up on	9	PC; TM; IM; SNS; PM; VC; EM; CR; WB
9	Insult	4	TM; IM; SNS; PC

Note: ^aNumber of ECT items; ^bECTs: PC: Phone Call; TM: Text Message; IM: Instant Messenger; SNS: Social Networking Site; PM: picture Message; VC: Video Chat; EM: Email; CR: Chatroom; WB: Website/Blog

The factors are labelled based on the behaviour as follows: (1) demanding passwords, unwanted sexting, sexting pressure and threats; (2) shared/distributed information and insults; (3) checked messages or contact histories; (4) deleted friends, prevention of ECT use and

embarrassment/humiliation; (5) made afraid not to respond to contact, unwanted sexting and embarrassment/humiliation; (6) sexting pressure, unwanted sexting and prevention of ECT use; (7) threats and embarrassment/humiliation; (8) contact to check up on you; and (9) insults (Table 4.7).

The nine unique factors were identified based on behaviour type. It was clear that the type of ECT used was not relevant to this underlying structure, meaning that the first hypothesis was rejected, as the TAADVA behaviours experienced did not cluster by ECT method. It was expected that some ECTs may relate to specific TAADVA behaviours (e.g. unwanted sexting via picture messages and embarrassment via public social networking sites), however this was not the case in these findings. Table 4.7 (also see Appendix 20) shows that when adolescents experience TAADVA they often experience multiple behaviours through a number of ECT methods. Factor three (checked messages) and eight (contact to check up on) are unique factors, characterised by all possible methods of ECT for these behaviours. Factor nine (insults) is also loaded as a unique behaviour on four of the ECTs. The three uniquely loaded behaviours may be perceived as milder in severity in their nature and if experienced alone, or potentially more common in adolescent dating relationships.

Some logical interpretations can be made in an attempt to understand the relationship between these behaviours on each factor that is not unique. Factors one and four appear to represent fairly serious behaviours such as demanding passwords, sexting pressure/unwanted and one threat item (Factor 1); and deleting contacts, prevention of ECT use to talk to others and embarrassment/humiliation (Factor 4). These findings may suggest that one type of TAADVA behaviour is possibly connected to or experienced alongside another behaviour. For example, deleting a partner's contacts may be used to prevent a partner from using ECTs to talk to others. The second factor comprised of all nine ECT methods regarding the sharing/distributing of information or images, in addition to insults via five ECTs. These behaviours may be related as name-calling could be used in conjunction with attempts to hurt a partner in other ways (i.e. sharing their private information). The fifth factor included all the nine ECT items for feeling afraid to not respond to a partner, in addition to three of the ECT items for unwanted sexting and one ECT item for being embarrassed/humiliated. These three behaviours may also relate to each other, for example, receiving unwanted sexting may lead to the recipient feeling afraid not to respond to such messages, or to send sexting messages themselves. The sexting pressure and unwanted sexting items were also loaded on factor six, in addition to prevention of ECT use. The seventh factor encompassed eight of the nine

ECTs for threatening behaviour in addition to six of the embarrassment/humiliation items. Notably, the two sexting TAADVA behaviours (sexting pressure and receiving unwanted sexts) were loaded across three different factors, accompanied by controlling, threatening and humiliating behaviours indicating that sexual TAADVA was not experienced in isolation from non-sexual forms of TAADVA. These findings offer new insights into the complex nature of adolescents' experiences of 12 TAADVA behaviours and the range of ECTs through which these are experienced in addition to behaviours that are experienced exclusively.

4.3.3. Prevalence of TAADVA and ADVA

Hypothesis 2: TAADVA and ADVA will be prevalent in adolescent romantic relationships and there will be a significant difference in prevalence by gender dependent on the nature of ADVA and TAADVA reported. Females will report more non-sexual and sexual TAADVA victimisation than males. Males will report more sexual TAADVA instigation than females. Females will report more non-sexual TAADVA instigation than males. Female adolescents will report more controlling ADVA victimisation and instigation and physical ADVA instigation than males. Males will report more physical ADVA victimisation than females. To address the second hypothesis, the prevalence of adolescents' past year victimisation and instigation of the 12 TAADVA behaviours, in addition to controlling and physical ADVA were assessed and gender comparisons were examined.

4.3.3.1. TAADVA

A total of 73% (199/277) of adolescents reported experiencing any TAADVA behaviour via any ECT at least once in the past year (68% males and 76% females; Table 4.8). Of those who were TAADVA victims, 40% were male and 60% were female. Table 4.8 provides a summary of adolescents' experience of each type of TAADVA victimisation by any ECT for the whole sample, males and females with past year dating experience. Across the 12 individual types of behaviour measured, 12-56% of adolescents reported receiving some form of TAADVA at least once or more (males: 11-54% and females: 12-57%).

Table 4.8

Prevalence of technology-assisted adolescent dating violence and abuse victimisation at least once or more (*n* =117-120 males; 157 females)

	Total % (<i>n</i>)	Male % (<i>n</i>)	Female % (<i>n</i>)	X²
Insults	45.1 (125)	38.3 (46)	50.3 (79)	$\chi^2(1, 277) = 3.95, p = .05, OR = 1.63$
Embarrass/humiliate	31.0 (86)	28.3 (34)	33.1 (52)	$\chi^2(1, 277) = 0.73, p = .39, OR = 1.25$
Shared/distributed info	28.3 (78)	25.2 (30)	30.6 (48)	$\chi^2(1, 276) = 0.96, p = .33, OR = 1.31$
Threatened	20.4 (56)	14.4 (17)	24.8 (39)	$\chi^2(1, 275) = 4.52, p = .03, OR = 1.96^*$
Check up on	55.8 (164)	53.8 (64)	57.3 (90)	$\chi^2(1, 276) = 0.35, p = .56, OR = 1.15$
Sexual/sexting pressure	19.6 (54)	11.8 (14)	25.5 (40)	$\chi^2(1, 276) = 8.90, p = .004, OR = 2.56^{**}$
Unwanted sexting	20.7 (57)	16.0 (19)	24.2 (38)	$\chi^2(1, 276) = 2.80, p = .09, OR = 1.68$
Checked messages	31.0 (85)	35.0 (41)	28.0 (44)	$\chi^2(1, 274) = 1.54, p = .21, OR = 0.72$
Demanded passwords	13.5 (37)	14.4 (17)	12.7 (20)	$\chi^2(1, 275) = 0.16, p = .69, OR = 0.87$
Deleted contacts	21.5 (59)	23.1 (27)	20.4 (32)	$\chi^2(1, 274) = 0.29, p = .59, OR = 0.85$
Feel afraid to not respond	15.7 (43)	11.1 (13)	19.1 (30)	$\chi^2(1, 274) = 3.24, p = .07, OR = 1.89$
Prevention of ECT use	12.4 (34)	11.1 (13)	13.4 (21)	$\chi^2(1, 274) = 0.32, p = .57, OR = 1.24$
Total	72.6 (199)	68.4 (80)	75.8 (119)	$\chi^2(1, 274) = 1.86, p = .17, OR = 1.45$

Note: *Significant at the .05 level (2-tailed); ** .01 level (2-tailed)

Being contacted by a dating partner to check up on their whereabouts, what they are doing and whom they are with was the most commonly reported TAADVA behaviour with over 50% of adolescents reporting having experienced this². Half of the female and almost two-fifths of the male adolescents reported experiencing insults and putdowns from a partner. Furthermore, almost a third of adolescents had been embarrassed or humiliated by a partner via ECT, had their messages checked and had their information or pictures/videos shared via ECT without consent. The next most common behaviours were threats, sexting pressure, unwanted sexting and having contacts deleted. Less prevalent behaviours were having passwords demanded, being afraid to not respond to contact and prevention from ECT use, but these were still prevalent in over 10% of the sample.

Pearson Chi-square tests were conducted to compare the 12 TAADVA victimisation behaviours by gender and the only significant differences found were for: having been threatened (*p*

² 6% of male adolescents reported being contacted by a partner to check up on them hourly by phone call and 5% by text message.

<.05); and experiencing sexting pressure ($p <.01$) from a dating partner (Table 4.8). Of those adolescents who experienced threats from a partner, 70% were female and 30% were male. The odds of adolescents experiencing threatening behaviour were almost twice as high for females than for males. Of those adolescents who experienced sexting pressure from a partner, 74% were female and 26% were male. The odds of adolescents experiencing sexting pressure were more than two-and-a-half times higher for females than for males. Notably, experiencing sexting pressure and unwanted sexting from a partner was more prevalent for females than males, despite only being significant for the former.

In terms of TAADVA instigation, 50% (134/277) of adolescents reported instigating any TAADVA behaviour by some form of ECT at least once or more (45% males and 53% females; Table 4.9). Of those who were TAADVA instigators, 38% were male and 62% were female, meaning females were more likely to be identified as TAADVA victims and instigators in these prevalence statistics compared to males. Table 4.9 provides a summary of adolescents' instigation of each type of TAADVA behaviour by any ECT.

Table 4.9

Prevalence of technology-assisted adolescent dating violence and abuse instigation at least once or more ($n = 114$ -115 males; 156-157 females)

	Total % (n)	Male % (n)	Female % (n)	χ^2
Insults	24.3 (66)	19.1 (22)	28.0 (44)	$\chi^2(1, 272) = 2.86, p = .09, OR = 1.65$
Embarrass/humiliate	11.0 (30)	8.7 (10)	12.7 (20)	$\chi^2(1, 272) = 1.11, p = .29, OR = 1.53$
Shared/distributed info	14.4 (39)	12.3 (14)	15.9 (25)	$\chi^2(1, 271) = 0.71, p = .40, OR = 1.35$
Threatened	7.7 (21)	7.0 (8)	8.3 (13)	$\chi^2(1, 271) = 0.15, p = .70, OR = 1.20$
Check up on	33.9 (92)	30.7 (35)	36.3 (57)	$\chi^2(1, 271) = 0.93, p = .34, OR = 1.29$
Sexual/sexting pressure	5.9 (16)	7.9 (9)	4.5 (7)	$\chi^2(1, 271) = 1.40, p = .24, OR = 0.54$
Unwanted sexting	4.8 (13)	5.3 (6)	4.5 (7)	$\chi^2(1, 271) = 0.09, p = .76, OR = 0.84$
Checked messages	17.4 (47)	18.4 (21)	16.7 (26)	$\chi^2(1, 270) = 0.14, p = .71, OR = 0.98$
Demanded passwords	5.6 (15)	9.6 (11)	2.6 (4)	$\chi^2(1, 270) = 6.30, p = .01, OR = 0.25^*$
Deleted contacts	8.9 (24)	10.5 (12)	7.7 (12)	$\chi^2(1, 270) = 0.65, p = .42, OR = 0.71$
Feel afraid to not respond	7.0 (19)	9.6 (11)	5.1 (8)	$\chi^2(1, 270) = 2.06, p = .15, OR = 0.51$
Prevention of ECT use	6.3 (17)	7.0 (8)	5.8 (9)	$\chi^2(1, 270) = 0.17, p = .68, OR = 0.81$
Total	49.6 (134)	44.7 (51)	53.2 (83)	$\chi^2(1, 270) = 1.89, p = .17, OR = 1.41$

Note: *Significant at the .01 level (2-tailed)

Across the 12 individual types of behaviour measured, 5-34% of adolescents (males: 5-31%; females: 3-36%) reported instigating some form of TAADVA at least once. Contacting a partner to check up on their whereabouts was the most commonly reported TAADVA behaviour, as it was for victimisation, with over 30% of males and females reporting instigating this. Insults, checking messages or contact histories, sharing a partner's information or images, and being embarrassed/humiliated were the next most common behaviours reported, similarly to victimisation. Few adolescents reported sexting-related instigation although this was higher for males compared to females. The prevalence of TAADVA instigation was lower than that for victimisation however, still substantial. As was found for victimisation, the prevalence of these instigation behaviours appears to vary between behaviour type, with what may be seen as potentially less severe behaviours such as insults and checking up on a partner being more common, while potentially more severe controlling behaviours such as preventing a partner from using ECT being less common, although still present.

Pearson Chi-square tests of the 12 TAADVA instigation behaviours by gender were significant for one of the 12 behaviours, having demanded a dating partner's passwords (Table 4.9). Of those adolescents who demanded passwords from a partner, 73% were male and 27% were female. The odds of adolescents demanding a partner's passwords were 0.25 higher for males than for females. The second hypothesis that TAADVA will be prevalent in adolescents' dating relationships and there will be a significant difference by gender (e.g. reports of sexual and non-sexual TAADVA victimisation will be higher for females and sexual instigation higher for males, while non-sexual TAADVA instigation will be higher for females) was therefore partially supported with regard to TAADVA victimisation for two of the 12 behaviours.

4.3.3.2. ADVA

Although ADVA was not as prevalent as TAADVA, over a third of adolescents reported some form of controlling ADVA victimisation and over two-fifths reported instigating controlling ADVA in the last 12 months (Table 4.10). A quarter of adolescents reported physical ADVA victimisation while 14% reported physical ADVA instigation (Table 4.10).

Table 4.10

Prevalence of controlling ($n=115$ males; 152-154 females) and physical adolescent dating violence and abuse ($n=114$ -115 males; 151-152 females) at least once or more in the last 12 months

	Total % (n)	Male % (n)	Female % (n)	X²
Controlling ADVA				
Victim	36.3 (97)	24.3 (28)	45.4 (69)	$\chi^2(1, 267) = 12.54, p = .000, OR = 2.58^*$
Instigator	43.1 (116)	31.3 (36)	51.9 (80)	$\chi^2(1, 269) = 11.44, p = .001, OR = 2.37^*$
Physical ADVA				
Victim	24.8 (66)	25.2 (29)	24.5 (37)	$\chi^2(1, 266) = 0.02, p = .89, OR = 0.96$
Instigator	14.3 (38)	9.6 (11)	17.8 (27)	$\chi^2(1, 266) = 3.50, p = .06, OR = 2.02$

Note: *Significant at the .001 level (2-tailed)

Pearson Chi-square tests of controlling and physical ADVA by gender were significant for controlling ADVA victimisation and instigation; physical ADVA was not significant (Table 4.10). However notably, 29% of physical ADVA instigators were male vs. 71% who were female. Of those adolescents who had been a victim of controlling ADVA, 71% were female and 29% were male. The odds of adolescents being a victim of controlling ADVA were over two-and-a-half times higher for females than for males. Of those adolescents who had instigated controlling ADVA, 69% were female and 31% were male. The odds of adolescents' being an instigator of controlling ADVA were 2.37 times higher for females than for males.

The second hypothesis that ADVA will be prevalent in adolescents' dating relationships and that there will be a significant difference by gender (e.g. reports of controlling ADVA victimisation and physical and controlling ADVA instigation will be higher for females, while physical ADVA victimisation will be higher for males) was partially supported with regard to controlling ADVA victimisation and instigation. Significant gender differences in physical ADVA were not found, despite females reporting a higher prevalence of physical ADVA instigation.

4.3.6. Overlap between victimisation and instigation of TAADVA and ADVA

Hypothesis 3: There will be an overlap between reported victimisation and instigation of TAADVA/ADVA with those who experience TAADVA being more likely to also report instigating TAADVA, and those who report experiencing ADVA will be more likely to also report instigating ADVA. In terms of sexual TAADVA specifically, it is expected that females will experience more exclusive victimisation than males, and males will report more exclusive instigation than females.

Patterns of adolescents' experiences of TAADVA/ADVA victimisation and/or instigation in the last 12 months varied depending on the type of violence. Nearly a half (49%) of adolescents who experienced TAADVA reported being an instigator-victim, a quarter (23%) reported being a victim only, and 1% were instigators only (and were males). This suggests that adolescents' experiences of TAADVA in this sample were typically characterised as being both an instigator and a victim (i.e. instigator-victim). With regard to controlling ADVA, nearly one third (31%) of adolescents reported being an instigator-victim, 12% reported being instigators only and 5% were victims only. For physical ADVA, 13% of adolescents reported being victims only, followed by being an instigator-victim (11%) and instigator only (3%; Table 4.11).

Table 4.11

Individual roles of technology-assisted adolescent dating violence and abuse ($n=114$ males; 156 females), and controlling ($n=115$ males and 152 females) and physical adolescent dating violence and abuse ($n=114$ males; 151 females)

	Total % (n)	Male % (n)	Female % (n)	X²/FE
TAADVA				$p = .16$
Victim only	23.3 (63)	24.6 (28)	22.4 (35)	
Instigator only	0.7 (2)	1.8 (2)	0 (0)	
Instigator-victim	48.9 (132)	43.0 (49)	53.2 (83)	
None	27.1 (73)	30.7 (35)	24.4 (38)	
Controlling ADVA				$X^2(3, 267) = 14.64, p = .002,$ Cramer's $V = .23^*$
Victim only	5.2(14)	4.3(5)	5.9 (9)	
Instigator only	12.0(32)	11.3(13)	12.5 (19)	
Instigator-victim	31.1(83)	20.0(23)	39.5 (60)	
None	51.7(138)	64.3(74)	42.1 (64)	
Physical ADVA				$p = .18$
Victim only	13.2(35)	16.7(19)	10.6 (16)	
Instigator only	3.0(8)	1.8(2)	4.0 (6)	
Instigator-victim	11.3(30)	7.9(9)	13.9 (21)	
None	72.5(192)	73.7(84)	71.5 (108)	

Note: *Significant at the .01 level (2-tailed)

A Pearson Chi-square test revealed that there was a significant relationship between gender and adolescents' involvement in controlling ADVA across the categories of 'victim-only', 'instigator

only', and 'instigator-victim' ($p < .01$). Post hoc analysis revealed that significantly fewer males (28%) reported being in the 'instigator-victim' controlling ADVA category than females (72%, $z = -2.13$, $p = .03$). No significant associations were found between these groups and TAADVA and physical ADVA ($p > .05$) using Fisher's Exact tests (Table 4.11).

Adolescents' role of involvement in sexual and non-sexual TAADVA was next examined (Table 4.12). A total of 29% of adolescents reported some form of involvement in sexual TAADVA, while 72% reported some form of involvement in non-sexual TAADVA. Twenty-one per cent of those with sexual TAADVA experience were victims only, followed by instigator-victims (7%) and instigators only (1%). Of those who were involved in non-sexual TAADVA, 48% were instigator-victims, followed by 24% who were victims only and 1% who were instigators only. Sexual TAADVA was therefore more likely to be characterised by victimisation only experiences while non-sexual TAADVA was predominantly characterised by those with an instigator-victim role (Table 4.12).

Table 4.12

Individual roles (i.e. victim, instigator, instigator-victim, none) of sexual ($n = 114$ males; 157 females), and non-sexual ($n = 114$ males; 156 females) technology-assisted adolescent dating violence and abuse

	Total % (<i>n</i>)	Male % (<i>n</i>)	Female % (<i>n</i>)	FE
Sexual TAADVA				$p = .002^*$
Victim only	21.0 (57)	10.5 (12)	28.7 (45)	
Instigator only	1.1 (3)	0.9 (1)	1.3 (2)	
Instigator-victim	7.0 (19)	7.9 (9)	6.4 (10)	
None	70.8 (192)	80.7 (92)	63.7 (100)	
Non-sexual TAADVA				$p = .16$
Victim only	23.7 (64)	24.6 (28)	23.1 (36)	
Instigator only	0.7 (2)	1.8 (2)	0.0 (0)	
Instigator-victim	47.8 (129)	42.1 (48)	51.9 (81)	
None	27.8 (75)	31.6 (36)	25.0 (39)	

Note: *Significant at the .01 level (two-tailed)

A Fisher's Exact test revealed that there was a significant relationship between gender and adolescents' involvement in sexual TAADVA across the categories of involvement ($p < .01$; Table 4.12). Post hoc analysis revealed that significantly more females (79%) were in the 'victim only'

category than males (21%, $z = 2.08$, $p = .03$). Likewise, males were significantly underrepresented in the 'victim only' category compared to females ($z = -2.45$, $p = .02$).

The third hypothesis that there will be overlap between reported instigation and victimisation of TAADVA/ADVA was therefore supported for all types of dating violence. For many adolescents, experiences of TAADVA and ADVA include both victimisation and instigation, however for some, these experiences as a victim or instigator may be exclusive. In addition, when considering sexual and non-sexual TAADVA specifically, females were more likely to report exclusive victimisation of sexual TAADVA as predicted. This was not statistically significant for males in terms of sexual TAADVA instigation as was hypothesised.

4.3.7. Overlap between TAADVA and ADVA

Hypothesis 4: There will be an overlap between TAADVA and ADVA experience such that those who report experiencing and/or instigating TAADVA will be more likely to report experiencing and/or instigating ADVA. The final aim of this chapter was to assess the extent to which TAADVA and ADVA overlap, and whether there are adolescents who only experience or instigate TAADVA, or whether the two forms co-occur.

The percentages of the overlap of adolescents' experiences of controlling and physical ADVA with TAADVA are provided in Table 4.13 and 4.15 (males) and Table 4.14 and 4.16 (females). For both male and female adolescents, there was some overlap in experiences of TAADVA and controlling or physical ADVA. For some adolescents, only TAADVA or ADVA was experienced. For example, for males, there were adolescents who had not experienced controlling ADVA who had experienced TAADVA victimisation (30%), instigation (3%), and instigation-victimisation (30%) and those with no experience of physical ADVA who had experience of TAADVA victimisation (24%), instigation (2%), and instigation-victimisation (38%). Some males with no experience of TAADVA did report controlling ADVA instigation (17%) and instigation-victimisation (19%), and physical ADVA victimisation (21%). Similarly, females with no experience of controlling ADVA had experienced TAADVA victimisation (33%) and instigation-victimisation (22%). Females with no experience of physical ADVA also had experience of TAADVA victimisation (28%) and instigation-victimisation (41%). On the other hand, females with no experience of TAADVA had experience of controlling ADVA instigation (39%) and instigation-victimisation (5%), and physical ADVA instigation (33%)

and instigation-victimisation (14%). Fisher’s Exact tests were conducted in order to examine whether there was a significant overlap between male and female adolescents’ experiences of TAADVA with their experiences of: (1) controlling and (2) physical ADVA (i.e. none, victim, instigator, and instigator-victim).

4.3.7.1. Controlling ADVA and TAADVA

For males (Table 4.13), Fisher’s Exact test revealed that there was a significant relationship between TAADVA experience and controlling ADVA ($p = .01$). Post hoc analyses however, revealed non-significant differences between groups, with only those in the TAADVA and controlling ADVA instigator-victims category approaching significance ($z = 1.96, p = .05$). If this was significant, this would suggest that male TAADVA instigator-victims were also more likely to be in the controlling ADVA instigator-victim (31%) category, compared to controlling ADVA victims only (10%) and instigators only (12.5%; although 46% of TAADVA instigator-victims were not involved in any controlling ADVA). As can be seen in Table 4.22, males who were controlling instigator-victims reported also being a TAADVA instigator-victim (71%), compared to being TAADVA instigators only (0%), victims only (9.5%), and none-involved (19%), meaning there was some considerable overlap between controlling ADVA and TAADVA, particularly for this instigator-victim group.

Table 4.13
Overlap of controlling adolescent dating violence and abuse with technology-assisted adolescent dating violence and abuse for males ($n = 111$)

Controlling ADVA	TAADVA				FE
	None % (<i>n</i>)	Victim % (<i>n</i>)	Instigator % (<i>n</i>)	Instigator- victim % (<i>n</i>)	
Males					$p = .01^*$
None	37.0 (27)	30.1 (22)	2.7 (2)	30.1 (22)	
Victim	0.0 (0)	0.0 (0)	0.0 (0)	100.0 (5)	
Instigator	16.7 (2)	33.3 (4)	0.0 (0)	50.0 (6)	
Instigator-victim	19.0 (4)	9.5 (2)	0.0 (0)	71.4 (15)	

Note: *Significant at the .01 level (two-tailed)

For females (Table 4.14), Fisher’s Exact tests revealed that there was a significant relationship between TAADVA experience and controlling ADVA ($p = .000$). Post hoc analysis revealed that significantly more females who had no experience of TAADVA also reported not experiencing

controlling ADVA (74%, $z = 3.01, p = .003$), compared to being controlling ADVA victims only (0%), instigators only (18.4%), and instigator-victims (8%); and controlling ADVA instigator-victims were underrepresented within the TAADVA non-involved group ($z = -3.13, p = .002$). Female TAADVA victims only were also significantly more likely to be in the no experience of controlling ADVA category (66%; $z = 2.06, p = .04$) compared to controlling ADVA victims only (6%), instigators only (9%), and instigator-victims (19%). This suggests that adolescents who did not experience TAADVA were also not likely to be involved in controlling ADVA. However, TAADVA victims only were also more likely to be in the non-involved controlling ADVA group, suggesting ECT does create new victims of TAADVA for females.

Table 4.14

Overlap of controlling adolescent dating violence and abuse with technology-assisted adolescent dating violence and abuse for females ($n = 150$)

Controlling ADVA	TAADVA			
	None % (<i>n</i>)	Victim % (<i>n</i>)	Instigator- victim % (<i>n</i>)	FE
Females				$p = .00^*$
None	44.4 (28)	33.3 (21)	22.2 (14)	
Victim	0.0 (0)	22.2 (2)	77.8 (7)	
Instigator	38.9 (7)	16.7 (3)	44.4 (8)	
Instigator-victim	5.0 (3)	10.0 (6)	85.0 (51)	

Note: *Significant at the .001 level (two-tailed)

Post hoc analysis also revealed that significantly more female adolescents who were TAADVA instigator-victims were also in the controlling ADVA instigator-victim category (64%; $z = 3.36, p = .001$) and significantly fewer were in the non-involved controlling ADVA category (17.5%; $z = -3.38, p = .001$) compared to the controlling ADVA victim only (9%) and instigator only (10%) categories. This suggests that there is a significant overlap between TAADVA and controlling ADVA instigation-victimisation for females. It can also be seen in Table 4.23 that more female controlling ADVA instigator-victims were also TAADVA instigator-victims (85%) compared to those not involved in TAADVA (5%) and TAADVA victims only (10%).

4.3.7.2. Physical ADVA and TAADVA

For males (Table 4.15), Fisher's Exact test revealed that there was not a significant relationship between TAADVA experience and physical ADVA ($p = .229$), suggesting there was no

significant overlap between male adolescents' experiences of TAADVA and physical ADVA.

However, 86% of physical ADVA instigator-victims were also TAADVA instigator-victims.

Table 4.15

Overlap of physical adolescent dating violence and abuse with technology-assisted adolescent dating violence and abuse for males ($n=110$)

Physical ADVA	TAADVA				FE
	None % (n)	Victim % (n)	Instigator % (n)	Instigator- victim % (n)	
Males					$p = .23$
None	35.4 (29)	24.4 (20)	2.4 (2)	37.8 (31)	
Victim	21.1 (4)	36.8 (7)	0.0 (0)	42.1 (8)	
Instigator	0.0 (0)	0.0 (0)	0.0 (0)	100.0 (2)	
Instigator-victim	0.0 (0)	14.3 (1)	0.0 (0)	85.7 (6)	

Note: Not significant

For females (Table 4.16), Fisher's Exact test revealed that there was a significant relationship between TAADVA experience and physical ADVA ($p=.000$). Post hoc analysis revealed that significantly fewer females who were not involved in TAADVA were in the physical ADVA victim only category (0%; $z = -2.02$, $p = .04$) compared to the physical ADVA instigator only (5%), instigator-victim (8%), and none-involved group (87%). In addition, post hoc analysis revealed that there were fewer female TAADVA victims only in the physical ADVA instigator-victim group (0%; $z = -2.12$, $p = .03$) than the physical ADVA instigator only (0%), victim only (6%) and none-involved group (94%), suggesting ECT creates new victims of TAADVA for females. Finally, post hoc analysis revealed that significantly more female TAADVA instigator-victims were in the physical ADVA instigator-victim group (23%; $z = 2.06$, $p = .04$), compared to the physical ADVA instigator only (5%), and victim only (18%) group (although 54.4% were in the none-involved group). It can also be seen in Table 4.16 that female victims of physical ADVA were more likely to be in the TAADVA instigator-victim group (87.5%) than the TAADVA victim only group (12.5%) or the TAADVA non-involved group (0%). Females who were physical ADVA instigator-victims were also more likely to be TAADVA instigator-victims (86%) compared to TAADVA victims only (0%) and those not involved in TAADVA (14%). There was therefore some considerable overlap with TAADVA and physical ADVA instigation-victimisation for females, as found for controlling ADVA.

Table 4.16

Overlap of physical adolescent dating violence and abuse with technology-assisted adolescent dating violence and abuse for females ($n = 149$)

Physical ADVA		TAADVA			FE
		None % (n)	Victim % (n)	Instigator- victim % (n)	
Females					$p = .000^*$
	None	31.1 (33)	28.3 (30)	40.6 (43)	
	Victim	0.0 (0)	12.5 (2)	87.5 (14)	
	Instigator	33.3 (2)	0.0 (0)	67.7 (4)	
	Instigator-victim	14.3 (3)	0.0 (0)	85.7 (18)	

Note: *Significant at the .001 level (two-tailed)

The fourth hypothesis regarding whether there is any overlap between adolescents' experiences of TAADVA with controlling or physical ADVA, was therefore partially supported. For many adolescents, experiences of TAADVA and ADVA did often overlap (particularly the instigator-victim role). This overlap was significant for controlling ADVA and TAADVA for males and females, however this was only significant for physical ADVA and TAADVA for females. For some adolescents, these experiences of TAADVA and controlling and physical ADVA were experienced in isolation (i.e. around two-thirds reported exclusive TAADVA involvement). Therefore, ECT appears to indeed create new victims and/or instigators of TAADVA, in addition to TAADVA and ADVA being experienced as a continuum of dating violence in both the online and offline contexts.

4.4. Discussion

This chapter aimed to address the first research question of this thesis resulting in the investigation of four hypotheses regarding the nature of ECT use in TAADVA; the prevalence of male and female TAADVA and ADVA; adolescents' role of involvement in TAADVA and ADVA; and the extent of overlap between TAADVA and ADVA.

It was anticipated that the ECT through which adolescents experience or use TAADVA may vary depending on the behaviour, however this was not the case, meaning the first hypothesis was rejected. The TAADVA behaviours were often not experienced in isolation from one another. Notably, the sexting pressure and unwanted sexting items were also loaded with other abusive and controlling behaviours. Moreover, the ECT method through which TAADVA is experienced was not particularly relevant with behaviours often experienced via a range of methods. This may be an artefact of the availability of multiple methods of ECT (i.e. calling, texting, emailing, sending picture messages and

video chat), and applications for such uses, in addition to the availability of the Internet on multiple platforms (e.g. a mobile or smartphone, a tablet, or laptop computer). Consistent with previous research (Draucker and Martsolf 2010, Korchmaros et al. 2013, and Zweig et al. 2013b), text messaging, social networking sites (and instant messenger) were the most prevalent forms of ECT used in TAADVA. Email, chatroom and websites/blogs were least prevalent. Such findings highlight a need to consider this in future questionnaires and in research regarding the impact of experiencing TAADVA via different (i.e. private and public) methods.

The finding from the factor analysis that being checked up on by a partner, having messages checked by a partner, and receiving insults by ECT were uniquely loaded in the factor structure, in addition to these behaviours being most prevalent in adolescents' experiences of TAADVA, may lend support to the idea that these behaviours are potentially more common and normalised in adolescent romantic relationships, or potentially perceived as less severe behaviours if experienced in isolation (rather than a range of abusive and controlling behaviours). For example, some adolescents have been found to report the instigation of ADVA for a joke or play purposes (Barter et al. 2009), and some adolescents do not perceive monitoring a partner's messages or checking behaviours as particularly harmful (Baker and Carreño 2016 and Lucero et al. 2014). Lucero et al. (2014) also found that adolescents' viewed some TAADVA behaviours as problematic only when they occurred outside of dating relationships. In the pilot study for this thesis (Stonard et al. 2015; Appendix 3), checking a partner's phone and messages were also perceived to be common behaviours. Although the context of this item was based on monitoring/controlling contact, it is possible that adolescents may have interpreted this question subjectively and therefore these findings should be considered with caution. The researcher did clarify the meaning of items when administering the questionnaires although the inclusion of the word 'excessive' or 'repeated' may have clarified this. This was included in the pre-pilot version however was removed based on the adolescents suggestions that this was not needed. No other research has investigated the structural nature of TAADVA using factor analysis to compare these findings to, making this a unique and original contribution to our understanding of the nature of TAADVA.

Notably, 12-56% of adolescents reported experiencing some form of TAADVA across the 12 behaviours by any ECT (73% overall) and 5-34% reported instigating TAADVA (50% overall), compared to 36%/43% and 25%/14% who were victims/instigators of controlling and physical ADVA

respectively. The TAADVA victimisation prevalence findings in this study are consistent with the broad estimates of TAADVA victimisation found in the review of TAADVA studies in Chapter 1, i.e. 10-56% for victimisation and 7-54% for instigation. The higher end of these prevalence ranges found in this study are greater than those in other UK studies, for example, Barter et al (2009): victimisation: 12-42% (females) and 4-19% (males); and Fox et al (2014): victimisation: 17% and instigation: 12%. A large survey of adolescents ($n = 3,277$) aged 14-17 years old in England and four other European countries also found that 40% of adolescents had experienced some form of online emotional violence (Barter et al. 2015a), however young men in England and Norway reported much lower levels (around 23%) of TAADVA. These findings confirm that TAADVA is prevalent in a substantial number of British adolescents' romantic relationships, potentially more so than traditional ADVA. This may be explained by the increased opportunity to communicate abusive behaviour via ECT instantly and repeatedly (Draucker and Martsof 2010), adolescents' increased willingness to report indirect abuse via ECT, or due to the nature of the questionnaire and the broad range of TAADVA behaviours.

Contacting a partner to check their whereabouts, checking a partner's messages, and insults and putdowns were the most common behaviours experienced and instigated by the adolescents in this study. These findings support previous research which has highlighted the prevalence of checking up on a partner or checking a partner's messages (Associated Press and MTV 2009, 2011, Barter et al. 2009 and Tompson, Benz, and Agiesta 2013) and insults and hurtful comments or putdowns (Cutbush et al. 2010 and Picard 2007). A notable percentage of adolescents (i.e. around 20% for victimisation) also reported experience and use of sexting pressure and sending or receiving unwanted sexting messages. This, in addition to the prevalence of adolescents reporting sharing a partner's information or images raises concerns for the impact of victimisation and instigation of such behaviours, particularly, for example, when such behaviours may place young people at risk of committing sexual offences through the creating, sharing or distributing of sexting images of young people under the age of 18 (e.g. The Protection of Children Act 1978, Section 1: Gov UK 1978).

It was expected that females would report a higher prevalence of non-sexual TAADVA victimisation and instigation and a higher rate of sexual TAADVA victimisation than males. This second hypothesis was partially supported; females reported significantly more victimisation of threats and sexting pressure via ECT, however males reported more instigation of demanding a partner's passwords. This is consistent with previous research to find a gendered nature to sexting and sexual

TAADVA (Cooper et al. 2016, Dick et al. 2014, Ringrose et al. 2012, Ringrose et al. 2013, Wood et al. 2015 and Zweig et al. 2013b). Although males were more likely to have had a sext shared in Dick et al.'s (2014) study, which is in contrast to previous research (Wood et al. 2015). These findings are in contrast to the qualitative pilot study of this research where it was found that males were more likely to report being recipients of checking or monitoring behaviours (e.g. demanding passwords) by females, although this was not exclusive (Stonard et al. 2015; Appendix 3). The second hypothesis was supported with regard to controlling ADVA, with females being more likely to be identified as victims and instigators, but this was not significant for physical ADVA (although the prevalence rate for instigating physical ADVA was higher for females). It is not known however, whether males underreport physical ADVA due to the perceived unacceptability of male violence towards females (Simon et al. 2010).

There was some overlap between victimisation and instigation in all three types of violence (TAADVA (49%), controlling (31%), and physical (11%) ADVA), partially supporting the third hypothesis. These prevalence levels are substantially lower than those for mutual ADVA (physical: 49-79% and psychological: 77-94%) identified in the review in Chapter 1. Notably, around half of adolescents were TAADVA instigator-victims and around a quarter were each in the victim only and non-involved group. Adolescents' experiences were generally not characterised by instigation only (only two males), which may be a result of socially desirable responding. Instigator-victim roles may reflect the typology of SCV or VC-VR/MSV or MVC as described by Johnson (2006) and Messinger et al. (2014), or the types of aggressive events as described by Draucker et al. (2010) as 'tumultuous' or 'scuffling' or by Draucker et al. (2012) as 'bickering' or 'brawling'. Such types of violence and abuse are characterised as being bi-directional and potentially recurring and more frequent events and may reflect a higher need for intervention. Bi-directional violence has been described by young people as 'fights' rather than 'abusive' (Draucker et al. 2012), signifying a potentially subjective nature of the impact of such behaviours. It is not known specifically whether these instigation-victimisation experiences occurred in the same relationship. More research is needed to explore how typologies of violence apply to TAADVA and the context, motives and level of control and gender inequality in TAADVA experiences.

In contrast to the findings in this thesis, Zweig et al. (2013b) reported that two-thirds of TAADVA victims were not also instigators, concluding that there may be less reciprocity of TAADVA

between partners than other forms of ADVA, however most TAADVA instigators (72%) also reported being victims. For controlling ADVA, a significant relationship was found between controlling ADVA role and gender, with females being over-represented in the instigator-victim category compared to males. This is an important and unique finding of this thesis that highlights that not only is the prevalence of TAADVA substantial, but adolescents are likely to have TAADVA (and controlling ADVA) experience as both an instigator and a victim. An important finding of this study was the significant association between gender and sexual TAADVA, with females more likely to be identified as 'victims only' compared to males. This provides further support for existing findings that have found a uni-directional and gendered nature to sexual ADVA and TAADVA (Barter et al. 2009, Wood et al. 2015 and Zweig et al. 2013b).

The fourth and final hypothesis was also partially supported as for some adolescents their experiences of TAADVA did overlap with experiences of controlling and/or physical ADVA. Korchmaros et al. (2013) also concluded that TAADVA instigation was likely to be an extension of offline abuse in their sample of adolescents (age 14-19), however 17% of TAADVA instigators did not instigate psychological abuse in person. The findings in this chapter indicate that around two-thirds of adolescents who reported experiences of TAADVA did not have experience of controlling or physical ADVA in the last 12 months, suggesting that ECT creates new TAADVA victims and/or instigators. Korchmaros et al. (2013) suggest that the use of ECT only to instigate psychological abuse may lie in the explanation that some individuals prefer indirect methods of abuse or the possibility that adolescents have limited time together in person. A finding of the pilot study of this thesis was that young adolescent females felt insecurities in their relationships over a partner's wellbeing or whereabouts, particularly when they did not see each other often outside of school leading to increased communication or monitoring/controlling behaviours (Stonard et al. 2015). Interestingly, 88% of females who were victims only of physical ADVA reported being instigator-victims of TAADVA, which may suggest that TAADVA is a preferred method (particularly for females) to communicate abuse. It has also been found in previous research that some adolescents establish and maintain relationships exclusively online (Mishna, McLuckie, and Saini 2009), suggesting a new digital culture within which relationships are maintained and in which abuse and controlling behaviour can be carried out indirectly.

4.4.1. Implications

The findings of this chapter raise several implications for theory, policy and practice. These will now be considered however the broader theoretical and practical implications of all three results chapters are provided in a general discussion in Chapter 7.

4.4.1.1. Theoretical implications

Technology-assisted ADVA may be described as an 'internet-enabled' type of cyber aggression as a result of the behaviours experienced online, traditionally being experienced offline (Kirwan and Power 2013). It is possible that adolescents who use ADVA in the offline context learn to use ECT as a new tool to continue their abuse and control of a partner via a diverse range of avenues, even from a single device (i.e. smartphone). Social learning theory states that people learn through experience, observation, and reinforcement (Bandura 1971, 1973, 1977), therefore if an instigator is able to use ECT as another form of abusive or controlling behaviour resulting in the same desired effect, reaction, or they receive a positive reinforcement (i.e. reassurance by checking up on a partner or checking their messages and contact histories), they may choose to use abusive and controlling behaviour electronically too. Although TAADVA behaviours appear to overlap with those in the offline environment (i.e. controlling and physical ADVA), these findings highlight that for some adolescents, involvement in TAADVA was exclusively technology-assisted. Therefore, TAADVA and its potential unique features may need to be accounted for theoretically.

It appears that ECT has provided a new tool and environment in which violence and abuse can be experienced or instigated potentially more easily and accessibly as a result of the availability of ECT (Bryant, Sanders-Jackson, and Smallwood 2006). Several criminological theories and theories of cyberspace specifically, can be and have recently been applied to explanations of cyber crime including cyber dating violence, bullying, harassment and stalking (Marcum 2011, Ngo and Paternoster 2011, Ouytsel, Ponnet, and Walrave 2016 and Pittaro 2007) and attempt to explain how ECT has created new opportunities for abusive and harassment behaviour that can be applied to interpret the TAADVA prevalence findings in this chapter. These theories include: routine activity theory (Cohen and Felson 1979), rational choice theory (Cornish and Clarke 1986), lifestyle exposure theory (Hindelang et al. 1978), and space transition theory (Jaishankar 2011). In terms of routine activity and lifestyle exposure theories, online risk behaviour, the length of the romantic relationship, engagement in sexting with a

romantic partner, and the amount of social networking site use have been linked to controlling TAADVA victimisation (Ouytsel, Ponnet, and Walrave 2016). In this context, ECT may present opportunities for motivated offenders via constant access to available victims and a lack of a capable guardian when communicating abuse via ECT. In addition, ECT provides daily exposure or access to a partner's personal information and in the case of sexting, intimate photos that can be used for abusive purposes. Spending extensive amounts of time online is also reported to place young people at an increased risk for online victimisation (e.g. unwanted exposure to sexual material, sexual solicitation, and unwanted nonsexual harassment), however protective software (i.e. the use of filtering and blocking) has not been found to decrease victimisation for the respondents (Marcum 2011).

In terms of space transition and rational choice theoretical perspectives, the online environment is reported to reduce the ability of the perpetrator to feel empathy for the victim, blur the boundaries between normal and acceptable behaviour, to increase dissociative anonymity, flexible identity, and online disinhibition (i.e. confidence to behave in a different way online to offline), in addition to allowing those with repressed behaviour offline to act out such behaviour online (Jaishankar 2011). This means that there is little deterrence for engaging in such behaviour and that ECT may provide unique opportunities for abusive behaviour to take place. These findings have implications for how we explain TAADVA and its high prevalence, helping to understand how increased opportunities as a result of unique features of ECT (i.e. availability, accessibility, anonymity, sharing information etc.) and ECT exposure may lead to TAADVA. It may be beneficial to increase the effect of deterrence through better methods of monitoring and reporting online abuse while educating victims about risks and safety and addressing motivating factors for instigators.

In addition to this, the findings have theoretical implications for typologies of TAADVA. The high percentage of overlap between adolescents' experiences and use of TAADVA (i.e. the instigator-victim role) is interesting and requires further theoretical and empirical attention in order to understand the nature of this instigator-victim role of involvement (i.e. whether the respondent was an instigator or victim first, and whether these roles occurred in the same relationship or in different ones over time). Gender differences found for this role in terms of controlling ADVA for females may also require future unpicking regarding the types of behaviour instigated and experienced, the subsequent impact of such behaviour, and gender differences. In addition, the limited number of adolescents to be identified as a TAADVA instigator only, suggests that TAADVA involvement mainly consisted of both

instigation and victimisation or victimisation only. Furthermore, a notable finding of this chapter that has theoretical implications for our understanding of TAADVA is the finding that females were more likely than males to experience exclusive sexual TAADVA victimisation. This confirms that sexual TAADVA (i.e. sexting pressure) is not gender-neutral, like that of traditional sexual ADVA (Foshee 1996 and Barter et al. 2009) and supports the feminist and gender inequality theoretical perspectives, as outlined in Chapter 2 (Brownmiller 2013, Walker 1989 and Yllö and Bograd 1990). As identified in Chapter 2, a range of traditional theoretical perspectives can be used to explain TAADVA, including the gendered nature of sexual TAADVA. However, TAADVA may also represent a unique form of abuse and was experienced by some adolescents exclusively. Therefore these traditional theories, while they still apply, may need adapting and new contemporary theories applied to explain TAADVA fully.

4.4.1.2. Implications for policy and practice

Several implications for policy and practice are raised from the findings in this chapter. These findings highlight the importance of acknowledging TAADVA as well as ADVA in definitions, policy, and prevention strategies. It is important to recognise that violence in romantic relationships may be experienced in both offline and online contexts and when one is present, practitioners should look for signs for the other. In addition, the unique nature of ADVA in the traditional and ECT-based contexts (and the diverse range of ECTs through which a range of TAADVA is experienced and instigated) should be acknowledged. Practitioners and those working with young people should also recognise the complex nature of TAADVA and ADVA experiences, for example, in terms of the role of involvement (i.e. bi- and uni-directional violence) and the level of controlling behaviour should be explored in more depth. Although both males and females reported a substantial amount of TAADVA and ADVA victimisation and instigation, clear gender differences were found with regard to sexual TAADVA experiences with females reporting more experience of this, and exclusively as a victim only, than males. These findings can help inform TAADVA prevention strategies via raising awareness and education of healthy relationship communication vs. obsessive, abusive and controlling online behaviours (as well as offline), sexual TAADVA and sexting risks, gender inequality, personal boundaries, the sharing of information, and responsible and safe Internet and ECT use. Adolescents should be taught skills to enhance positive relationship functioning in both the offline and online environment.

4.4.2. Limitations

As with any research the findings should be considered within the context of the study's limitations. Data collected with self-report surveys is subject to response bias, potential variations in how participants interpret terms and their meaning, problems of memory recall and omission (Bryman 2004). Furthermore, the teacher, peers and researcher being present during data collection may have influenced how comfortable respondents were with completing the questionnaire despite being done individually and anonymously. Systematic missing data was excluded reducing the number of valid responses that could be used to conduct the analyses. Another limitation was that offline sexual ADVA was not measured, meaning sexual TAADVA cannot be directly compared with sexual ADVA. The reasons for this were discussed in Chapter 3, and will be revisited again in Chapter 7.

4.5. Conclusion

This chapter has established the nature and prevalence of TAADVA and ADVA victimisation and instigation among a sample of British adolescents using a comprehensive TAADVA questionnaire including considerations for gender differences. Adolescents' experiences of TAADVA victimisation did not significantly vary in terms of the ECT methods used and often multiple TAADVA behaviours were experienced in combination with one another. Technology-assisted ADVA was more prevalent than controlling and physical ADVA. Females were significantly more likely to report receiving TAADVA in the form of threats and sexting pressure from a dating partner than males while males were more likely to report demanding a partner's passwords (i.e. to phones/online accounts) than females. Females reported significantly more frequent experiences of controlling ADVA victimisation and instigation. It has also been established that adolescent experiences of victimisation and instigation of TAADVA/ADVA often overlap. However, females were more likely to report exclusive victimisation of sexual TAADVA. Furthermore, a unique finding of this study was that while experiences of TAADVA and ADVA often overlap, for a considerable number of adolescents ECT appeared to create new victims and/or instigators of TAADVA only. What remain unexplored are the potential correlates of TAADVA, which is the focus of Chapter 5.

Chapter 5: Correlates of Technology-Assisted Adolescent Dating Violence and Abuse

5.1. Introduction

The aim of this chapter is to identify some of the characteristics of young people who engage in TAADVA, and to examine which of these factors independently predict TAADVA by role of involvement. A number of risk factors have been identified for ADVA; however, research regarding risk factors for TAADVA is less empirically advanced (see Chapter 2). This chapter aims to expand our knowledge about the correlates of adolescents' TAADVA experiences as a victim only and an instigator-victim, given the findings from Chapter 4 that only two adolescent males reported solely TAADVA instigation, and which were subsequently excluded from the current analyses.

In Chapter 2, 12 groups of risk factors for ADVA were identified with peer, family, personal aggression and Psychological Adjustment and Personal Competency (PAPC) influences being the most frequently reported. In addition, nine types of correlates of TAADVA were found, with past ADVA being the most frequently identified correlate. In general, these findings suggest that having peers involved with ADVA or aggressive behaviour may influence adolescents' own ADVA involvement. Furthermore, family influences such as experiences of parental Intimate Partner Violence (IPV) and parent-child relationships, and PACP-related factors such as attachment anxiety, anger, depression, and relationship conflict appeared to be potential influencing factors of ADVA. Broadly, these empirical findings in Chapter 2 can be accounted for theoretically with social learning, attachment, and feminist/gender inequality theoretical perspectives.

Attachment has been used as a theoretical framework to explain the role of risk/protective factors in ADVA and a theoretical framework for adult IPV (Bowlby 1984, Hazen and Shaver 1987, 1994). It has been suggested that problematic combinations of anxiously attached females and avoidant males is associated with male perpetrated IPV in adults (Godbout et al. 2009 and Dumas et al. 2008). However, partner attachment anxiety as a specific risk factor for ADVA has only recently been explored (Miga et al. 2010 and Ulloa, Martinez-Arango, and Hokoda 2014), and there is limited empirical research examining the role of attachment (and in particular attachments to different people; i.e. parents, friends, and partners) in adolescent romantic relationships and those that include ADVA

and TAADVA. An unanticipated finding in the pilot study of this research was the role of anxious emotions and related obsessive and controlling behaviours within the context of young (age 12-13) female adolescents' use of Electronic Communication Technology (ECT) in romantic relationships (Stonard et al. 2015; Appendix 3). As there are gaps in our understanding about the role of attachment in TAADVA and ADVA, this study investigated whether adolescents' involved in TAADVA as a victim or an instigator-victim reported higher anxious and avoidant attachment insecurity than those not involved.

Another prominent theoretical perspective used to explain the risk/protective factors for ADVA in Chapter 2 was Social Learning Theory (SLT; Bandura 197, 1973, 1977). Peer influences (e.g. friend involvement in ADVA) were a frequently identified risk factor for ADVA in the studies reviewed (Arriaga and Foshee 2004, Ellis, Chung-Hall, and Dumas 2013 and Foshee et al. 2013). Ellis Chung-Hall, and Dumas (2013) found that peer group physical aggression was associated with personal ADVA and interestingly, positive relationship quality. This may suggest that peer and personal aggression are normalised within adolescents' social networks. However, there is a gap in knowledge regarding the potential role of friend ADVA/TAADVA in personal TAADVA and how this may differ for males and females. Therefore, this study investigated whether having friends with experience of historical and current TAADVA victimisation and instigation was associated with self-reported TAADVA.

Previous ADVA has been identified as a longitudinal risk factor for ADVA (Reyes et al. 2014, Reyes and Foshee et al. 2013, Temple et al. 2013 and Tschann et al. 2009). Furthermore, physical and/or psychological, and/or sexual ADVA have been identified as correlates of TAADVA (Cutbush et al. 2010, 2012, Dick et al. 2014, Epstein-Ngo et al. 2014 and Zweig et al. 2013b). However, no studies have examined the role of ADVA in relation to TAADVA among British adolescents across the sexes based on role of involvement (i.e. victim or instigator-victims). Controlling and physical ADVA victimisation and instigation was therefore examined in order to confirm if these behaviours were associated with TAADVA experience.

Adolescents may vary in the frequency and intensity of their romantic relationships (Connolly et al. 2004 and Shulman and Scharf 2000), and middle and older (e.g. aged 14-18) adolescent females are more likely to have had a dating relationship experience during adolescence and to report having more steady relationships (Davies and Windle 2000 and Meier and Allen 2009). Females have also

been found to express more attachment, care and a higher level of affective intensity in their relationships than males, in addition to reporting relationships that last longer (Shulman and Scharf 2000). Connolly et al. (2004) did not find any gender differences in adolescents' dating experience. Another original contribution of this study was therefore to explore the potential role of perceived relationship closeness in relation to TAADVA involvement.

An increase in adolescents' own age has also been associated with physical and/or emotional ADVA (Barter et al. 2009), however, the role of age in TAADVA is unexplored and was therefore also examined in this study. Finally, having an older partner (i.e. more than one year older) has been identified as a correlate of physical and emotional ADVA victimisation for females and having a younger partner has been associated with emotional ADVA for males (Barter et al. 2009). In addition, adolescents who report having older partners have been found to be more likely to experience ADVA (including online emotional abuse; Barter et al. 2015b). Furthermore, adolescents reporting at least one older partner have been found to be more likely to report online and offline emotional (and sexual for males) dating violence instigation (Barter et al. 2015b). Therefore, having an older dating partner was also examined as a potential correlate of TAADVA in this study.

Drawing on previous research, the research question addressed in this chapter explored whether the following factors: anxious and avoidant attachment; friend historical and current TAADVA victimisation and instigation; controlling and physical ADVA victimisation and instigation; relationship closeness; age; and age of dating partner were: (a) characteristics of those by role (victim or instigator-victim) who engage in TAADVA, and (b) independent predictors of TAADVA group role.

5.1.1. Hypotheses

Specifically, it was expected that:

- *Hypothesis 1: There will be significant between groups (TAADVA victims only, instigator-victims, and none) differences on the 13 predictor variables.*
- *Hypothesis 2: The significant predictor variables for males and females identified from Hypothesis 1 will independently predict group membership as a TAADVA victim only and an instigator-victim.*

5.2. Method

5.2.1. Design

A cross-sectional between subjects correlational design was used. The criterion variable was TAADVA group membership (i.e. victim, instigator-victim, and none), and the predictor variables were the 13 identified potential predictors/correlates of interest.

5.2.2. Participants

The participants in this study were the 277 adolescents with past year dating relationship experience and who provided data for all the variables used in the subsequent analysis. Consequently, the participants were the same as those reported in Chapter 4.

5.2.3. Measures

In addition to the TAADVA questionnaire, the following measures were also completed: (1) anxious and avoidant attachment, (2) friend historical and current TAADVA victimisation and instigation, (3) controlling and (4) physical ADVA victimisation and instigation, (5) relationship closeness, (6) age difference of adolescents dating partner, and (7) age. These measures are described in more detail in Chapter 3. Of note, higher scores on the avoidant attachment measure represent security while higher scores on the anxious measure represent insecurity.

5.2.4. Analytical strategy

Data screening revealed that the data breached assumptions of linearity, homogeneity and/or Box's test of normality. Descriptive frequencies of 12 of the 13 predictor variables for the three categories of TAADVA group membership for males and females are summarised for contextual information (the responses to the age of dating partner variables is reported in Chapter 4, Section 4.2.2.1.4). In order to answer the first hypothesis, the impact of group membership on 12 of the 13 factors of interest was examined using Kruskal-Wallis ANOVA. Post hoc Mann-Whitney U tests were then conducted on significant findings. Comparisons of the age of dating partner factor were conducted separately using a Chi-square test due to this being a categorical variable. In order to test the second hypothesis, multinomial logical regression was conducted to examine which of these significant

correlates of TAADVA independently predicted TAADVA group membership. All analyses were conducted separately for males and females.

5.3. Results

5.3.1. Data screening and correlations with social desirability

A summary of the mean, standard deviations, range, and correlations with social desirability for the 13 dependant variables is provided in Appendix 21. After applying the appropriate Bonferroni corrections, no significant correlations with social desirability were found.

5.3.2. Between groups (TAADVA victims only, instigator-victims, and none) comparisons of the 13 predictor variables

Hypothesis 1: *There will be a significant between groups (TAADVA victims only, instigator-victims, and none) difference on the 13 predictor variables.* The findings for the 12 continuous predictor variables for each TAADVA group are summarised in Table 5.2 (males) and Table 5.3 (females). As seen in Tables 5.2-5.3, there was a significant effect of TAADVA group (non-involved, victim, instigator-victim) on five of the predictor variables for males (avoidant attachment, controlling ADVA victimisation and instigation, physical ADVA instigation, and age) and nine of the predictor variables for females (friend historical and current TAADVA victimisation, friend historical TAADVA instigation, controlling and physical ADVA victimisation and instigation, relationship closeness, and age). Mann-Whitney U tests were used to follow up the significant findings from the Kruskal-Wallis analyses in order to determine where these differences were.

Table 5.2Male between group comparisons on 12 predictor variables ($n = 106-112$)

	None <i>M (SD)</i>	Victim Only <i>M (SD)</i>	Inst-Vict <i>M (SD)</i>	Kruskal-Wallis
Anxious attachment	2.46 (1.19)	2.09 (1.19)	2.49 (1.33)	H(2, 106)=5.55, $p = .28$
Avoidant attachment	4.97 (0.94)	4.50 (0.87)	4.33 (1.01)	H(2, 106)=8.18, $p = .02^*$
Friend historical TAADVA victim	0.61 (1.18)	0.45 (0.69)	0.58 (0.83)	H(2, 112)=0.62, $p = .73$
Friend current TAADVA victim	0.27 (0.68)	0.00 (0.00)	0.21 (0.53)	H(2, 112)=5.29, $p = .07$
Friend historical TAADVA instigator	0.29 (0.72)	0.07 (0.26)	0.24 (0.72)	H(2, 111)=1.69, $p = .43$
Friend current TAADVA instigator	0.14 (0.48)	0.07 (0.38)	0.15 (0.46)	H(2, 111)=1.59, $p = .45$
Controlling ADVA victim	0.02 (0.05)	0.04 (0.17)	0.43 (0.92)	H(2, 109)=16.41, $p = .000^{***}$
Controlling ADVA instigator	0.04 (0.09)	0.07 (0.15)	0.46 (0.97)	H(2, 109)=9.73, $p = .008^{**}$
Physical ADVA victim	0.01 (0.04)	0.07 (0.17)	0.24 (0.57)	H(2, 109)=5.26, $p = .07$
Physical ADVA instigator	0.00 (0.00)	0.00 (0.01)	0.18 (0.60)	H(2, 108)=8.61, $p = .01^{**}$
Relationship closeness	4.43 (1.37)	4.39 (1.62)	5.02 (1.32)	H(2, 112)=4.77, $p = .09$
Age	13.89 (1.39)	13.61 (0.74)	14.63 (1.75)	H(2, 112)=8.55, $p = .01^{**}$

Note: *Significant at the .05 level (2-tailed); **.01; ***.001

Table 5.3Female between group comparisons on 12 predictor variables ($n = 147-156$)

	None <i>M (SD)</i>	Victim Only <i>M (SD)</i>	Inst-Vict <i>M (SD)</i>	Kruskal-Wallis
Anxious attachment	2.16 (0.98)	2.30 (1.34)	2.69 (1.34)	H(2, 147)=4.13, $p = .13$
Avoidant attachment	5.07 (1.05)	4.70 (0.85)	4.55 (0.91)	H(2, 147)=5.74, $p = .06$
Friend historical TAADVA victim	0.42 (0.82)	0.47 (0.65)	1.33 (1.33)	H(2, 156)=21.51, $p = .000^{**}$
Friend current TAADVA victim	0.12 (0.38)	0.04 (0.19)	0.54 (1.00)	H(2, 156)=16.45, $p = .000^{**}$
Friend historical TAADVA instigator	0.11 (0.35)	0.03 (0.17)	0.49 (0.97)	H(2, 156)=17.44, $p = .000^{**}$
Friend current TAADVA instigator	0.07 (0.33)	0.03 (0.17)	0.22 (0.73)	H(2, 156)=4.90, $p = .09$
Controlling ADVA victim	0.03 (0.15)	0.21 (0.68)	0.57 (0.75)	H(2, 150)=47.36, $p = .000^{**}$
Controlling ADVA instigator	0.06 (0.17)	0.07 (0.16)	0.53 (0.71)	H(2, 152)=42.32, $p = .000^{**}$
Physical ADVA victim	0.01 (0.06)	0.02 (0.09)	0.11 (0.21)	H(2, 149)=22.19, $p = .000^{**}$
Physical ADVA instigator	0.01 (0.05)	0.00 (0.00)	0.09 (0.22)	H(2, 150)=13.23, $p = .001^{**}$
Relationship closeness	4.41 (1.14)	4.22 (1.22)	4.79 (1.46)	H(2, 152)=7.34, $p = .03^*$
Age	13.82 (1.27)	13.66 (1.08)	14.53 (1.36)	H(2, 156)=15.90, $p = .000^{**}$

Note: *Significant at the .05 level (2-tailed), **.001

There was no significant association between TAADVA involvement and age of participants' dating partner (i.e. the same age or younger vs. older) for males ($\chi^2(2, 110) = 2.32, p = .31$, Cramer's $V = .15$) and females ($\chi^2(2, 154) = 2.11, p = .35$, Cramer's $V = .12$).

5.3.2.1. Post-hoc comparisons: Males

A Bonferroni correction was applied for the comparisons of the five significant variables for males, therefore all effects are reported at a .01 level of significance. There were no significant differences between the TAADVA victims and those not involved in TAADVA in the first post-hoc comparison (Table 5.4). This suggests that male TAADVA victims and non-involved adolescents did not significantly differ in their avoidant attachment, controlling ADVA, physical ADVA instigation, and age (Table 5.4).

Table 5.4

Post hoc Mann-Whitney comparisons between technology-assisted adolescent dating violence and abuse victims and non-involved males ($n = 60^a, 61^b, 63^c$ males)

	Victims							
	None <i>Mdn</i>	Non <i>Range</i>	Victim <i>Mdn</i>	Victim <i>Range</i>	Mann- Whitney <i>U</i>	<i>z</i> - score	<i>p</i> - value	Effect size(<i>r</i>)
Avoidant attachment ^a	5.00	3.25- 6.96	4.54	3.00- 6.42	322.50	-1.828	.068	-0.24
Controlling ADVA victim ^b	0.00	0.00- 0.17	0.00	0.00- 0.92	441.50	-0.574	.566	-0.07
Controlling ADVA instigator ^b	0.00	0.00- 0.33	0.00	0.00- 0.50	437.50	-0.511	.609	-0.07
Physical ADVA instigator ^b	0.00	0.00- 0.00	0.00	0.00- 0.07	445.50	-1.168	.278	-0.15
Age ^c	14.00	12.00- 18.00	13.50	13.00- 16.00	458.50	-0.473	.636	-0.06

Note: *Significant at the .01 level (2-tailed) Bonferroni corrected

When comparing males who were non-involved with TAADVA instigator-victims, there were significant differences for three of the five predictor variables (Table 5.5). One of these factors (avoidant attachment security) was significantly higher for non-involved youths compared to TAADVA instigator-victims. Two variables (controlling ADVA victimisation and instigation) were significantly higher for males in the TAADVA instigator-victim category compared to the non-involved group (Table 5.5).

Table 5.5

Post hoc Mann-Whitney comparisons between technology-assisted adolescent dating violence and abuse instigator-victims and non-involved males ($n = 79^a, 80^b, 81^c, 84^d$)

					Instigator-Victims			Effect size (<i>r</i>)
	None <i>Mdn</i>	None <i>Range</i>	Inst-Vic <i>Mdn</i>	Inst-Vic <i>Range</i>	Mann-Whitney <i>U</i>	<i>z</i>-score	<i>p</i>-value	
Avoidant attachment ^a	5.00	3.25-6.96	4.19	2.67-6.67	483.00	-2.744	.006*	-0.31
Controlling ADVA victim ^c	0.00	0.00-0.17	0.00	0.00-4.00	531.50	-3.103	.002*	-0.34
Controlling ADVA instigator ^c	0.00	0.00-0.33	0.00	0.00-4.00	552.00	-2.751	.006*	-0.31
Physical ADVA instigator ^b	0.00	0.00-0.00	0.00	0.00-3.00	643.50	-2.478	.013	-0.28
Age ^d	14.00	12.00-18.00	14.00	12.00-18.00	634.50	-2.123	.034	-0.23

Note: *Significant at the .01 level (2-tailed) Bonferroni corrected

This suggests that male non-TAADVA involved adolescents were more securely attached (i.e. scored higher) on the avoidant scale than TAADVA instigator-victims. Furthermore, TAADVA instigator-victims reported more frequent experiences on the controlling ADVA victimisation and instigation variables than non-TAADVA involved adolescents. Physical ADVA instigation and age were not significant in the post hoc tests for males.

5.3.2.2. Post-hoc comparisons: Females

A Bonferroni correction was applied for the comparisons of the nine significant variables for females meaning all effects are reported at a .006 level of significance. Post hoc analysis for females revealed no significant differences in the nine predictor variables between TAADVA victims compared to non-TAADVA involved youth (Table 5.6). This suggests that female TAADVA victims and non-involved adolescents did not differ in their reports of friend historical and current TAADVA victimisation, friend historical TAADVA instigation, controlling and physical ADVA victimisation and instigation, relationship closeness and age (Table 5.6).

Table 5.6

Post hoc Mann-Whitney comparisons between technology-assisted adolescent dating violence and abuse victims and non-involved females ($n = 70^a$, 71^b - 73^c)

	Victims				Mann-Whitney <i>U</i>	z-score	p-value	Effect size (<i>r</i>)
	None <i>Mdn</i>	None <i>Range</i>	Victim <i>Mdn</i>	Victim <i>Range</i>				
Friend historical TAADVA victim ^c	0.00	0.00-4.00	0.00	0.00-2.00	604.50	-0.766	.444	-0.09
Friend current TAADVA victim ^c	0.00	0.00-2.00	0.00	0.00-1.00	615.50	-1.070	.285	-0.13
Friend historical TAADVA instigator ^c	0.00	0.00-2.00	0.00	0.00-1.00	598.00	-1.554	.120	-0.18
Controlling ADVA victim ^a	0.00	0.00-0.92	0.00	0.00-3.75	500.50	-2.001	.045	-0.24
Controlling ADVA instigator ^b	0.00	0.00-1.00	0.00	0.00-0.75	614.50	-0.185	.853	-0.02
Physical ADVA victim ^a	0.00	0.00-0.33	0.00	0.00-0.53	599.00	-0.238	.812	-0.03
Physical ADVA instigator ^a	0.00	0.00-0.27	0.00	0.00-0.00	528.00	-2.113	.035	-0.25
Relationship closeness ^a	4.08	1.58-6.25	4.42	1.25-6.25	577.50	-0.412	.681	-0.05
Age ^c	14.00	12.00-18.00	13.00	12.00-18.00	614.00	-0.606	.545	-0.07

Note: *Significant at the .006 level (2-tailed) Bonferroni corrected

When comparing the TAADVA instigator-victim group with those non-involved, five of the nine factors were significantly different (Table 5.7). These five factors (friend historical TAADVA victimisation, controlling ADVA victimisation and instigation, physical ADVA victimisation, and age) were significantly higher for TAADVA instigator-victims compared to non-TAADVA involved youths (Table 5.7). This suggests that female TAADVA instigator-victims reported more frequent scores on the friend historical TAADVA victimisation, controlling ADVA victimisation and instigation, physical ADVA victimisation, and age variables. Friend current TAADVA victimisation or historical instigation, physical ADVA instigation, and relationship closeness were not significant in the post hoc tests for females.

Table 5.7

Post hoc Mann-Whitney comparisons between technology-assisted adolescent dating violence and abuse instigator-victims and non-involved females ($n = 117$,^a 118^b, 119^c, 121^d)

	Instigator-Victims							
	None <i>Mdn</i>	None <i>Range</i>	Inst-Vic <i>Mdn</i>	Inst-Vic <i>Range</i>	Mann-Whitney <i>U</i>	<i>z</i> - score	<i>p</i> - value	Effect size (<i>r</i>)
Friend historical TAADVA victim ^d	0.00	0.00- 4.00	1.00	0.00- 4.00	892.50	-3.988	.000*	-0.36
Friend current TAADVA victim ^d	0.00	0.00- 2.00	0.00	0.00- 4.00	1192.00	-2.689	.007	-0.24
Friend historical TAADVA instigator ^d	0.00	0.00- 2.00	0.00	0.00- 4.00	1206.50	-2.615	.009	-0.24
Controlling ADVA victim ^b	0.00	0.00- 0.92	0.25	0.00- 3.00	506.00	-6.205	.000*	-0.57
Controlling ADVA instigator ^c	0.00	0.00- 1.00	0.25	0.00- 3.00	634.00	-5.356	.000*	-0.49
Physical ADVA victim ^a	0.00	0.00- 0.33	0.00	0.00- 1.00	996.00	-3.633	.000*	-0.34
Physical ADVA instigator ^b	0.00	0.00- 0.27	0.00	0.00- 1.47	1267.00	-1.981	.048	-0.18
Relationship closeness ^a	4.08	1.58- 6.25	5.08	1.00- 7.00	1127.00	-1.835	.067	-0.17
Age ^d	14.00	12.00- 18.00	14.00	12.00- 18.00	1085.00	-2.842	.004*	-0.26

Note: *Significant at the .006 level (2-tailed) Bonferroni corrected

5.3.2.3. Summary

The first hypothesis was therefore only partially supported. Contrary to expectations, TAADVA instigator-victims did differ from those not involved on some but not all of the predictor variables. Those involved in TAADVA as an instigator-victim reported more frequent involvement in controlling ADVA victimisation and instigation. For females, reports of physical ADVA victimisation and friend historical TAADVA victimisation were also higher for TAADVA instigator-victims, as was being older. For males, being more avoidant on the attachment scale was associated with TAADVA instigation-victimisation. No differences were found between non-TAADVA involved adolescents and those who had experience of TAADVA as a victim only, contrary to expectations that such experience would have a relationship with the potential correlates measured.

5.3.3. Factors associated with TAADVA involvement

Hypothesis 2: *The significant predictor variables for males and females identified from Hypothesis 1 will independently predict group membership as a TAADVA victim only and an instigator-victim.* The previously identified significant predictor variables in the Kruskal-Wallis comparisons for males (five variables) and females (nine variables) were entered in to separate multinomial logistic regression models to determine whether these factors independently predicted adolescents' TAADVA involvement (victim only or instigator-victim). Initial screening using regression analysis revealed that the model breached assumptions of multicollinearity for males for the controlling and physical ADVA instigation variables, evidenced by their low Tolerance scores (reaching or below .2) and higher Variance Inflation Factors (Field 2009). These instigation variables were therefore combined to create a new composite controlling and physical ADVA instigation variable, meaning there were four predictors in the subsequent logistic regression model for males in order to improve the predictive power of the test. For females, the original nine significant factors were used.

5.3.3.1. Males

A multinomial logistic regression analysis was conducted in order to explore which of the previously significant predictor variables independently predicted TAADVA victimisation and instigation-victimisation for male adolescents (Table 5.8). A test of the final model fit for males with the four factors was significant ($\chi^2(8)=32.423, p=.000$), suggesting that the model explains a significant amount of the original variability. Nagelkerke's R^2 score of .301 indicated that the combination of variables accounted for 30% of variance in male TAADVA experience.

None of these four factors independently significantly predicted whether male adolescents were a TAADVA victim only: avoidant attachment ($b=-0.50$, Wald $\chi^2(1)=3.06, p=.080$); controlling ADVA victimisation ($b=1.46$, Wald $\chi^2(1)=0.23, p=.633$); the controlling and physical ADVA instigator composite variable ($b=3.34$, Wald $\chi^2(1)=0.56, p=.455$); or age ($b=-0.26$, Wald $\chi^2(1)=0.90, p=.344$; Table 5.8). Avoidant attachment did independently significantly predict whether adolescents were a TAADVA instigator-victim ($b=-0.58$, Wald $\chi^2(1)=4.51, p=.034$). The odds ratio (.563) indicates that when avoidant attachment is raised by one unit on this measure (i.e. more secure), the change in the odds of being a TAADVA instigator-victim (rather than not involved) decreases,

therefore TAADVA instigator-victims were less secure. The other three factors of interest did not independently predict TAADVA instigation-victimisation: controlling ADVA victimisation ($b=3.20$, Wald $\chi^2(1)=1.27$, $p=.259$); the controlling and physical ADVA instigator composite variable ($b=4.46$, Wald $\chi^2(1)=1.02$, $p=.312$); or age ($b=0.26$, Wald $\chi^2(1)=1.62$, $p=.203$).

Table 5.8

Multinomial Logistic regression of correlates for technology-assisted adolescent dating violence and abuse experience for males ($n=105$)

	B (SE)	95% CI for OR		
		Lower	EXP(B)	Upper
Victim Only				
Intercept	5.56 (3.86)			
Avoidant attachment	-0.50 (0.29)	0.34	0.60	1.06
Controlling ADVA victim	1.46 (3.05)	0.01	4.29	1696.83
Controlling and Physical ADVA Instigator Composite	3.34 (4.47)	0.00	28.22	178946.16
Age	-0.26 (0.27)	0.46	0.78	1.31
Instigator-Victim				
Intercept	-1.16 (2.93)			
Avoidant attachment	-0.58* (0.27)	0.33	0.56	0.96
Controlling ADVA victim	3.20 (2.83)	0.10	24.47	6304.47
Controlling and Physical ADVA Instigator Composite	4.46 (4.41)	0.02	86.25	487959.91
Age	0.26 (0.21)	0.87	1.30	1.94

Note: $R^2=.27$ (Cox & Snell), $.30$ (Nagelkerke). Model $\chi^2(8)=32.42$, $p<.001$. * $p<.05$

5.3.3.2. Females

A multinomial logistic regression analysis was conducted in order to explore which of the previously identified variables of interest independently predicted TAADVA group membership (victim, and instigator-victim) for females (Table 5.9). A test of the final model fit with the nine factors was significant ($\chi^2(18)=75.733$, $p=.000$), suggesting the model explains a significant amount of the original variability. Nagelkerke's R^2 score of $.469$ indicated that the combination of variables accounted for 47% of variance in female TAADVA experience.

Table 5.9

Multinomial Logistic regression of correlates for technology-assisted adolescent dating violence and abuse experience for females ($n=145$)

	B (SE)	95% CI for OR		
		Lower	EXP(B)	Upper
Victim Only				
Intercept	2.92 (3.71)			
Friend Historical TAADVA Victim	-0.09 (0.46)	0.37	0.92	2.27
Friend Current TAADVA Victim	-1.10 (1.41)	0.02	0.33	5.27
Friend Historical TAADVA Instigator	0.27 (1.63)	0.05	1.31	32.23
Controlling ADVA Victim	4.63 (2.50)	0.76	102.80	13908.87
Controlling ADVA Instigator	-0.51 (2.14)	0.01	0.60	39.62
Physical ADVA Victim	3.27 (5.18)	0.00	26.23	668895.86
Physical ADVA Instigator	-225.91 (0.00)	7.758E-99	7.758E-99	7.758E-99
Relationship Closeness	-0.04 (0.21)	0.64	0.96	1.44
Age	-0.21 (0.26)	0.49	0.81	1.35
Instigator-Victim				
Intercept	-5.56 (3.00)			
Friend Historical TAADVA Victim	0.51 (0.35)	0.84	1.67	3.31
Friend Current TAADVA Victim	-0.09 (0.77)	0.20	0.92	4.17
Friend Historical TAADVA Instigator	-0.22 (0.92)	0.21	1.24	7.51
Controlling ADVA Victim	4.06 (2.47)	0.46	57.70	7268.04
Controlling ADVA Instigator	2.49 (1.83)	0.33	12.08	436.90
Physical ADVA Victim	3.83 (4.51)	0.01	45.83	318062.74
Physical ADVA Instigator	-6.99 (4.71)	9.021E-8	0.00	9.47
Relationship Closeness	0.19 (0.20)	0.82	1.21	1.77
Age	0.30 (0.21)	0.90	1.35	2.03

Note: $R^2=.41$ (Cox & Snell), $.47$ (Nagelkerke). Model $\chi^2(18)=75.73$, $p<.001$. * $p<.05$

None of the nine factors independently significantly predicted whether female adolescents were a TAADVA victim only: friend historical TAADVA victimisation ($b=-0.09$, Wald $\chi^2(1)=0.04$, $p=.852$); friend current TAADVA victimisation ($b=-1.10$, Wald $\chi^2(1)=0.61$, $p=.434$); friend historical TAADVA instigation ($b=0.27$, Wald $\chi^2(1)=0.03$, $p=.867$); controlling ADVA victimisation ($b=4.63$, Wald $\chi^2(1)=3.42$, $p=.064$); controlling ADVA instigation ($b=-0.51$, Wald $\chi^2(1)=0.06$, $p=.812$);

physical ADVA victimisation ($b=3.27$, Wald $\chi^2(1)=0.40$, $p=.528$); physical ADVA instigation ($b=-225.91$); relationship closeness ($b=-0.04$, Wald $\chi^2(1)=0.04$, $p=.834$); or age ($b=0.13$, Wald $\chi^2(1)=0.65$, $p=.422$; Table 5.9).

In addition, surprisingly none of these nine factors independently significantly predicted whether female adolescents were an TAADVA instigator-victim: friend historical TAADVA victimisation ($b=0.51$, Wald $\chi^2(1)=2.15$, $p=.143$); friend current TAADVA victimisation ($b=-0.09$, Wald $\chi^2(1)=0.01$, $p=.911$); friend historical TAADVA instigation ($b=-0.22$, Wald $\chi^2(1)=0.06$, $p=.812$); controlling ADVA victimisation ($b=4.06$, Wald $\chi^2(1)=2.70$, $p=.100$); controlling ADVA instigation ($b=2.49$, Wald $\chi^2(1)=1.85$, $p=.173$); physical ADVA victimisation ($b=3.83$, Wald $\chi^2(1)=0.72$, $p=.397$); physical ADVA instigation ($b=-6.99$, Wald $\chi^2(1)=2.20$, $p=.138$); relationship closeness ($b=0.19$, Wald $\chi^2(1)=0.91$, $p=.341$); or age ($b=0.30$, Wald $\chi^2(1)=2.16$, $p=.142$).

5.3.3.3. Summary

The second hypothesis was therefore only partially supported for males and was rejected fully for females. The only factor that significantly independently predicted TAADVA group membership was avoidant attachment for male TAADVA instigator-victims. An increase in avoidant attachment security was associated with a decrease in TAADVA involvement for this group. The two groups could not be differentiated based on this cluster of characteristics for females. Both models however, were a good fit and explained a large proportion of the variance.

5.3.3.4. Post-hoc power analysis

A post-hoc power analysis was conducted based on the alpha size (0.05), effect size (.5), and sample size of the multinomial logistic regression models. Post-hoc power analysis revealed that the achieved power for the independent predictor of avoidant attachment for male TAADVA instigation-victimisation was 87%, well within the suggested acceptable level of power of at least 80% (Cohen 1988). The post-hoc power analysis for the non-significant predictors for TAADVA victimisation and instigation-victimisation ranged from 35%-100%. The post-hoc power analysis for the all of the non-significant independent predictors for females ranged from 0%-100%.

5.4. Discussion

This chapter had two aims to explore whether 13 factors identified as being related to ADVA were also correlates of TAADVA, and whether these factors independently predicted TAADVA group membership as a victim or instigator-victim vs. none. Hypotheses 1 and 2 were only partially supported. Male TAADVA instigator-victims reported more frequent experiences of controlling ADVA victimisation and instigation, and avoidant attachment insecurity. Female TAADVA instigator-victims reported more frequent experiences of friend historical TAADVA victimisation, controlling ADVA victimisation and instigation, physical ADVA victimisation, and age. The effect of being a TAADVA victim only on the predictor variables was not significant for both sexes. Anxious attachment, friend current TAADVA victimisation and historical and current instigation, physical ADVA instigation, relationship closeness, and age of dating partner were not significant in these initial comparative analyses.

The finding that controlling and physical ADVA was related to TAADVA is comparable to previous research (Cutbush et al. 2010, 2012; Dick et al. 2014, Epstein-Ngo et al. 2014 and Zweig et al. 2013b, 2014a). However, this is the first study to explore adolescents' experience of these factors in terms of the experience of victimisation and instigation-victimisation combined. These findings confirm that TAADVA and ADVA is connected, however causal relationships cannot be concluded. Only two other studies have previously examined and identified a relationship between partner anxious attachment and ADVA (Miga et al. 2010 and Ulloa, Martinez-Arango, and Hokoda 2014) and one study has recently explored partner anxiety in relation to TAADVA (Wright 2014), however there is no other research to compare these findings regarding attachment avoidance to. No other studies have explored friend involvement in TAADVA or age with self-reported TAADVA involvement, meaning these findings also provide an original contribution research. Having friends who use or have experience of ADVA have been identified as risk factors for physical ADVA (Arriaga and Foshee 2004, Foshee et al. 2013 and Foshee, Reyes, and Ennett 2010). Therefore, peer ADVA/TAADVA may be an important factor in shaping female adolescents' expectations about relationships including ADVA and TAADVA. It is interesting that the age difference of adolescents' dating partner variable was not significant, contrary to Barter et al.'s (2015b) recent study that found that having an older dating partner was associated with ADVA including online emotional abuse.

Only avoidant attachment security significantly (negatively) predicted male TAADVA instigation-victim group membership in the multinomial logistic regression analysis, meaning Hypothesis 2 was partially accepted for males and fully rejected for females. This finding may suggest that male adolescents who score more securely on the avoidant attachment measure are more open in their relationships, meaning there is less need to monitor or control a partner or to be monitored or controlled themselves. Being more avoidant in relationships may suggest an avoidance of relationships altogether, however this could mean that (potentially more preoccupied) partners of avoidant males pursue information by monitoring for example, messages to learn information about their partner or in an attempt to get closer resulting in TAADVA (Baker and Carreño 2016). On the other hand, more avoidant adolescents may use violence to distance oneself from intimacy or as a result of poor relationship functioning (Bowlby 1984 and Hazen and Shaver 1987, 1994). It is interesting that only avoidant attachment was relevant and for males but not females, given the findings in the qualitative pilot study (Stonard et al. 2015; Appendix 3), when it was found that females expressed awareness of or personal experiences of anxious, obsessive and controlling feelings or behaviours within the context of romantic relationship.

5.4.1. Implications

5.4.1.1. Theoretical implications

The findings from this chapter highlight several important theoretical implications. First, the finding that avoidant attachment insecurity independently predicted TAADVA involvement as an instigator-victim for males is noteworthy and requires further examination. For example, it is not known whether this relationship between avoidant attachment and TAADVA is a result of male adolescents' avoidant attachments with parents, partners and friends collectively as a result of the global anxious attachment measure, or whether certain aspects of this variable are more strongly related to self-reported TAADVA. Further exploration of this factor could help to inform both theoretical explanations of TAADVA and prevention efforts that address unhealthy attachments and relationship behaviours. It was interesting that anxious attachment was not statistically significant for females, despite the findings from previous research regarding ADVA (Ulloa, Martinez-Arango, and Hokoda 2014), TAADVA (Wright 2014) and the pilot study (Stonard et al. 2015). The pilot findings may point to other PAPC-related factors rather than attachment directly such as jealousy or sensitivity

to interpersonal rejection. Furthermore, it would be interesting to explore whether the effect of attachment varies in terms of its influence on TAADVA and ADVA, which was subsequently explored as part of the analyses in Chapter 6.

The finding that friend TAADVA was associated with female TAADVA instigation-victimisation raises important theoretical insights into the influence of peers, the role of social learning and the potential development of attitudes that tolerate TAADVA as normal behaviour within adolescent romantic relationships. This finding can help to inform future theoretical explanations of TAADVA and identifies the peer context as a potentially important avenue for raising awareness of unhealthy relationships. The finding also highlights the potential role of peers as attachment figures and role models in the development of relationship expectations. Further research that explores the role of situational factors such as peer influences in addition to attachments to friends, partners and parents as a potential mediating factor may also prove an interesting line of inquiry to assess the significance of these attachments, peer role models, and personal relationship functioning.

Finally, the finding that the controlling ADVA variables for both sexes and physical ADVA for females was related to self-reported TAADVA, highlights and confirms the overlap between ADVA and TAADVA and a need to consider online and offline forms of violence when attempting to explain and manage violence in adolescent romantic relationships. The initial significant finding regarding relationship closeness for females may also provide a promising line of further inquiry as a main effect or as a moderator or mediator with other factors such as attachment.

5.4.1.2. Implications for policy and practice

Several implications for policy and practice are raised from the findings in this chapter. These findings highlight a need for prevention and intervention efforts to address attachment avoidance (for males). In addition, education regarding healthy relationships, ADVA/TAADVA awareness, expressing emotions, managing conflict and relationship functioning would prove useful. Education that addresses such issues in the peer context may be effective in changing attitudes towards ADVA/TAADVA and encouraging healthy relationships, help-seeking and bystander intervention. School settings and other organisations and cyberspaces that young people attend and interact with each other are an ideal place to integrate interventions. Practitioners should also be mindful of the different roles of involvement (i.e. victim and/or instigator) adolescents may have in TAADVA and the

influencing factors involved with its nature and management. Furthermore, prevention and intervention efforts should take into account that factors associated with TAADVA may differ for males and females. For example, friend TAADVA was particularly important for females in the study in this chapter while avoidant attachment was associated with TAADVA for males.

5.4.2. Limitations

As with any research the findings should be considered within the context of its limitations. As noted in Chapter 4, data collected with self-report surveys is subject to response bias and influences of having the researcher, teacher, and peers present (Bryman 2004). A limitation of this study is that the potential correlates of TAADVA measured had to be limited to a manageable number in order to prevent a need for restrictive multiple corrections. Questions were also completed on friend controlling/emotional, physical and sexual ADVA that could have been broken down to explore peer influences more specifically or investigated more broadly by combining the variables in order to provide a broader understanding of the role of friend ADVA/TAADVA in personal TAADVA. In addition, the global anxious and avoidant attachment measures can be used in terms of the respondents attachment to each their mother, father, dating partner, and friend, in order to explore attachment-related characteristics in more depth. This is expanded on in Chapter 6.

5.5. Conclusion

This chapter has reported the findings from an investigation into 13 potential correlates of TAADVA victimisation and instigation-victimisation combined. Comparative analyses revealed that TAADVA involvement as an instigator-victim was associated with some but not all of these factors for males and females however, none of these factors were associated with adolescents categorised as TAADVA victims only. Controlling ADVA appears to be a correlate for males and females, while physical ADVA victimisation and peer TAADVA were important for female involvement. Only one of these factors (avoidant attachment) independently predicted TAADVA group membership as an instigator-victim. Being more securely attached on the avoidant attachment measure decreased TAADVA involvement for males. The third and final research question of this thesis explores the role of attachment to parents, partners, and friends as a mediator in the relationship between friend dating violence and self-reported TAADV and ADVA (Chapter 6).

Chapter 6: The Influence of Attachment to Parents, Friends, and Partners on the Relationship Between Friend Dating Violence and Self-Reported Experiences of Technology- Assisted and Offline Adolescent Dating Violence and Abuse

6.1. Introduction

In Chapter 5, the characteristics of adolescents who engage in Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA) as a victim only and an instigator-victim were examined, and the factors that independently predicted TAADVA were explored. The aim of this chapter is to further explore two particular predictors found as significant in the analyses undertaken in the previous chapter: friend historical TAADVA victimisation (for females) and avoidant attachment (for males). Both the role of friend Adolescent Dating Violence and Abuse (ADVA) and attachment characteristics were identified as salient risk factors for ADVA in Chapter 2, and it has been suggested that peer influences are more influential during adolescence than are parental influences (Harris 1995). However, the role of attachment to parents, friends, and partners (socio-cognitive influences) in the relationship between peer ADVA/TAADVA (socio-cultural influences) and self-reported ADVA and TAADVA is relatively unexplored. This chapter therefore addresses the third and final research question of this thesis and examined whether the association between friend TAADVA and ADVA combined (this will now be referred to as *friend dating violence*) and self-reported TAADVA and ADVA is influenced by attachment to parents, friends, and partners, and whether there are gender differences in these associations.

The two most prominent groups of risk factors for ADVA identified in Chapter 2 were peer and family influences based on the empirical evidence of studies reviewed. These areas of influence have been broadly interpreted within the context of social learning theory (Bandura 1971, 1973, 1977), attachment theory (Bowlby 1969, 1979, 1984), gender inequality (Pence and Paymar 1993 and Yllö and Bograd 1990) and control theories (Straus, Gelles, and Steinmetz 1980). Such theories attempt to explain how ADVA is learned socially through observation and reinforcement, through the development of Internal Working Models (IWM) of relationships with significant others, and through

socio-cultural norms and values related to gender roles and inequality. The findings in Chapter 5 also confirmed the importance of friend TAADVA and avoidant attachment insecurity in self-reported TAADVA. However, it is not known to whom this attachment was related to specifically (i.e. mother, father, friend, and/or partner) and whether attachment to different people influence situational factors such as friend dating violence in self-reported ADVA/TAADVA.

Traditionally, attachment theory has been used to explain how children and young people's experiences of relationships in the family context lead to particular styles of attachment to caregivers (i.e. secure, avoidant, anxious, and disorganised) and healthy or problem behaviours in later in life (Bowlby 1969, 1979, 1984, Ainsworth 1967, Ainsworth and Bell 1970 and Ainsworth et al. 1978). Early attachments with parents are thought to influence peer and romantic relationships via the establishment of secure IWM and learned relationship skills (Booth-LaForce and Kerns 2009, Furman and Collins 2009 and Hartup 2009). For example, secure attachments are thought to lead to happy and trusting relationships, avoidant attachment with a fear of intimacy, and anxious attachment is associated with obsession, extreme sexual attraction and jealousy (Hazan and Shaver 1987). However, Brendgen's (2002) study with 336 adolescent males (age 16-17) found that problematic experiences with both parents (family aggression) and with peers (aggressive friends and rejection by peers) predicted physical dating and delinquency-related violence, suggesting this was due to positive attitudes towards violence and heightened rejection sensitivity. Research with adolescents and young adults has also identified a link between parent and peer relationship quality, relationship insecurity and attachment anxiety to a partner, and peer rejection sensitivity and self-reported ADVA/TAADVA (Linder, Crick and Collins 2002, Miga et al. 2010, Volz and Kerig 2010 and Wright 2014). Laible, Carlo, and Raffaelli (2000) found that adolescents who were securely attached (in terms of measures of trust, communication, and alienation) to both peers and parents were the best adjusted (i.e. least aggressive and depressed and most sympathetic). Furthermore, those who were secure with peers but insecure with parents were better adjusted than those who were secure with parents but insecure with peers, suggesting that peer attachment may be relatively more influential on adolescent adjustment than parent attachment.

Attachment style is thought to be relatively stable throughout childhood and adolescence (Hamilton 2000, Ammaniti et al. 2000 and Zimmermann and Becker-Stoll 2002). As the importance of attachment to parents reduces throughout adolescence, with peers and partners becoming the primary

attachment figures (Allen and Land 1999 and Roberts-Gray 1999), attachments to peers and romantic partners may play a more influential role during adolescence and subsequent relationship behaviours. However, Furman and Collins (2009) argue such relationships are unlikely to reach the critical level of attachment relationships. Freeman and Brown (2001) found that parents (mothers more than fathers) and peers (dating partners more than friends) were equally likely to be identified as primary adolescent (11-12th graders) attachment figures, but this was related to attachment style and whether they had a dating partner. Secure adolescents significantly favoured mothers as their primary attachment figure, while preoccupied adolescents favoured romantic partners and best friends, and dismissing adolescents identified themselves or peers. A comparison of parent and peer attachment support (measured by separation protest, proximity seeking and secure base effect) indicated that best friends and boy/girlfriends were chosen significantly more often than parents (particularly adolescents in romantic relationships). In a sample of 279 fourth, sixth and eighth graders, Nickerson, and Nagle (2005) found that older (and more female than male) eighth grade adolescents turned to peers to fulfil attachment functions of proximity seeking, although all participants reported that parents primarily served secure base functions. Those who viewed relationships with parents as less secure were more likely to select peers to fulfil attachment functions. Finally, Doyle et al. (2009) followed three cohorts of 373 adolescents (ages 13, 16, and 19 years) for two years and found that older adolescents were more dismissive with parents and friends (but not romantic partners) than younger adolescents.

There have been mixed findings regarding the relationship between adolescents' attachments to parents, friends, and partners. Furman et al. (2002) found that adolescents' ($n = 68$) IWM of relationships with parents were related to IWM with friends, but not romantic partners; and IWM of relationships with friends were related to IWM with romantic partners. Controlling behaviours in friendships were also related to controlling behaviours in romantic relationships. The authors suggest that views of friendships may mediate the links between views of relationships with parents and romantic relationships as peer relationships present stronger influences for adolescent romantic relationships. Doyle et al. (2009) found that maternal insecure attachment was associated with later partner insecure attachment; paternal insecure attachment was associated with later friend insecure attachments; and friend attachment insecurity was associated with later insecurity with a partner. Adolescents were more likely to be anxious in romantic relationships and avoidant with parents and close friends. Therefore, support has been found for attachment relationships between parents, friends

and romantic partners, with mixed findings regarding the strongest importance. Peer attachments however appear to be particularly important in attachment with a romantic partner.

Research has established a link between having peers who are involved in ADVA and self-reported ADVA (Arriaga and Foshee 2004, Ellis, Chung-Hall, and Dumas 2013 and Foshee et al. 2013). However, less is known about the role of friend dating violence in TAADVA, although having friends who were victims of TAADVA was identified as a correlate of female TAADVA in Chapter 5. The peer context is thought to provide adolescents with models and expectations about relationships including violence, which then influence adolescents own romantic relationship behaviours (Connolly and Goldberg 1999 and Furman et al. 2002). The social learning theory (Bandura 1971, 1973, 1977) can help explain how adolescents learn to imitate ADVA/TAADVA behaviours and attitudes from their peer groups, reinforced by social approval. On the other hand, supportive and high quality relationships with peers can act as protective/promotive factors against ADVA (Foshee et al. 2013, Richards and Branch 2012 and Richards, Branch, and Ray 2014). Supportive relationship experiences may be considered within the context of secure attachments. For example, Richards, Branch and Ray (2014) measured supportive friendships with items such as ‘They care about me’ and ‘I feel close to my friends’, characteristics that may represent low anxiety and avoidance in friendships. Peer socialisation is therefore viewed as being particularly important during adolescent development whereby social networks provide a training ground for youth to explore relationships with others going through similar experiences (Connolly et al. 2004, Connolly and Goldberg 1999 and Furman and Collins 2009).

It has been argued that the influence of peer involvement in ADVA is stronger than that of parental partner violence on adolescents’ own ADVA (Arriaga and Foshee 2004). Reasons for this are due to the significance and importance of peer relationships in shaping adolescents expectations about relationships during adolescence, young people’s growing independence, and the increasing amount of time spent together with friends (Bukowski, Motzoi and Meyer 2009, Collins and Madsen 2002, Harris 1995, Lee et al. 2013, Savin-Williams and Berndt 1990 and Thibaut and Kelley 1959). Six studies have explored the role of peer and parental influences in dating or peer violence. With a sample of 526 (8-9th grade) adolescents, Arriaga and Foshee (2004) found that friend violence was more important than interparental violence in predicting ADVA victimisation (for females) and instigation six months later. Research has also found that peer dating violence influences the relationship between interparental

conflict and ADVA for males (Kinsfogel and Grych 2004). Linder and Collins (2005) found that the quality of early (e.g. age 13) relationships with parents (e.g. hostile, negative, and conflictual parent-child interactions) influenced future dating violence victimisation and conflict management skills in relationships in young adulthood (age 21). However, high friendship quality with friends at age 16 contributed over and above familial predictors resulting in decreased likelihood of being involved in dating violence aged 21 years. Richards and Branch (2012) and Richards, Branch, and Ray (2014) found that increased social support from friends, but not parents was associated with significantly less physical and emotional ADVA. In contrast, Miller et al. (2009) found that parent support for aggression moderated the association between peer deviancy and ADVA instigation (2,824 sixth grade adolescents). Therefore, parents and friends may influence ADVA/TAADVA, however friend ADVA and friend attachment characteristics appear to be stronger and therefore appear to represent important components of both the 'microsystem' and 'ontogenetic or individual-system' of the ecological model (Bronfenbrenner 1994 and Dutton 1995) used to explain factors influencing dating violence.

In summary, research regarding adolescent attachment to and between parents, friends and romantic partners is fairly limited (Booth-LaForce and Kerns 2009, Brown and Wright 2001 and Crittenden 2000). Even less is known about the role of attachment in ADVA and TAADVA, whether attachment to certain individuals is more important than others, and its potential role in mediating relationships between situational factors associated with ADVA/TAADVA (i.e. friend dating violence). Therefore, this chapter aimed to explore the influence of avoidant and anxious attachment to parents, friends and partners on the relationship between friend dating violence (*ADVA and TAADVA combined*) and self-reported TAADVA and ADVA across both sexes.

6.1.1. Hypotheses

Specifically, it was expected that:

- *Hypothesis 1: Those involved in TAADVA and ADVA will report having more friends with experience of dating violence than those not involved*
- *Hypothesis 2: Those involved in TAADVA and ADVA will report higher avoidant and anxious attachment insecurity to parents, friends, and partners than those not involved*

- *Hypothesis 3: There will be an association between having friends with experience of dating violence and avoidant and anxious attachment insecurity*
- *Hypothesis 4: There will be an association between adolescent attachment security to parents, attachment security to friends, and attachment security to partners*

The results from Hypotheses 1-4 stimulated further in-depth analyses regarding potential mediating relationships between these correlates of TAADVA and ADVA:

- *Hypothesis 5: Maternal avoidant attachment will mediate the relationship between friend historical dating violence victimisation and instigation and self-reported TAADVA, and paternal anxious attachment will mediate the relationship between friend current dating violence instigation and self-reported ADVA for females*
- *Hypothesis 6: Friend historical dating violence victimisation and instigation will predict self-reported ADVA independently from maternal anxious and avoidant attachment for females*

6.2. Method

6.2.1. Design

A cross-sectional between subjects correlational design was used. The criterion variables were TAADVA and ADVA group membership (none vs. instigator-victim), and the predictor variables were the four friend dating violence and eight attachment factors of interest based on the review and findings from Chapters 2 and 5 (see Section 6.2.3).

6.2.2. Participants

The participants in this study were the 277 adolescents with past year dating relationship experience and who provided data for all of the variables used in the subsequent analysis. Consequently, the participants were the same as those reported in Chapters 4-5.

6.2.3. Measures

The following measures were completed by participants: (1) the TAADVA questionnaire, (2) controlling ADVA; (3) physical ADVA; (4) number of friends with experience of historical and current ADVA/TAADVA; and (5) anxious and avoidant attachment to mothers, fathers, partners, and friends. These are described in more detail in Chapter 3. Of note, the friend ADVA and TAADVA variables were combined into four ‘total friend dating violence’ variables (historical and current victimisation and instigation). In addition, the high scores on the avoidant attachment measure represent security while high scores on the anxious attachment measure represent insecurity.

6.2.4. Analytical strategy

The offline controlling and physical ADVA victimisation and instigation variables were combined and recoded into one ‘total ADVA’ categorical variable (controlling and physical ADVA combined) in terms of the type of involvement (victim or instigator only, instigator-victim, and none), as was done for TAADVA in Chapter 4, in order to compare ADVA with TAADVA. Table 6.1 shows the breakdown of adolescents’ roles of involvement in ADVA.

Table 6.1

Individual roles of total offline adolescent dating violence ($n = 120$ males and 157 females)

Offline ADVA	Total % (<i>n</i>)	Male % (<i>n</i>)	Female % (<i>n</i>)
Victim only	7.9 (22)	10.8 (13)	5.7 (9)
Instigator only	8.7 (24)	7.5 (9)	9.6 (15)
Instigator-victim	38.6 (107)	28.3 (34)	46.5 (73)
None	44.8 (124)	53.3 (64)	38.2 (60)

Parallel analyses were conducted examining the correlates of the non-involved and instigator-victim roles of ADVA and TAADVA as a result of the instigator-victim role being the most prevalent type of involvement (39% ADVA and 49% TAADVA) and due to the small number participants in the other categories of involvement (Table 6.1 and Chapter 4, Section 4.3.6). Furthermore, significant associations were only found for those in the TAADVA instigator-victim role in Chapter 5.

Data screening revealed that the data breached assumptions of linearity, homogeneity and/or Box's test of normality meaning non-parametric tests were used. In order to test the first four hypotheses, Mann-Whitney U analyses of (1) friend dating violence and self-reported TAADVA and ADVA and (2) attachment and self-reported TAADVA and ADVA were conducted, in addition to Spearman's Rho correlations between (3) friend dating violence and attachment and (4) attachment to parents, friends and partners. Mediation analyses were conducted using PROCESS to examine whether attachment mediated the relationship between friend dating violence (i.e. an indirect effect) and self-reported TAADVA and ADVA. When using mediation analysis, Field (2013) suggests computing Confidence Intervals (CI) for the indirect effect using bias-corrected bootstrap methods to assess the degree of mediation observed in the data. When the 'b' coefficient value falls with the 95% CI, which does not contain zero, a genuine indirect effect has been found. Finally, backwards-stepwise binary logistic regression analyses were conducted to confirm independent relationships of other significant correlates identified in the initial correlations.

6.3. Results

6.3.1. Data screening and correlations with social desirability

A summary of the mean, standard deviations, range, and correlations with social desirability for the friend dating violence and attachment variables is provided in Appendix 22. After applying the appropriate Bonferroni corrections none of these factors were found to have a significant correlation with social desirability.

6.3.2. Initial comparisons and correlations between the criterion and predictor variables

All Mann-Whitney U comparison and Spearman's Rho correlational analyses were conducted separately for males and females. Bonferroni corrections for multiple analyses were applied and are provided in the notes of the results Tables 6.2-6.8.

6.3.2.1. Comparisons between TAADVA and ADVA involved and non-involved groups with friend dating violence

Hypothesis 1: *Those involved in TAADVA and ADVA will report having more friends with experience of dating violence than those not involved.*

6.3.2.1.1. TAADVA

For males, there were no significant differences between the TAADVA involved and non-involved groups on the friend dating violence variables (Table 6.2). For females, the TAADVA involved group in comparison to those not involved reported having significantly more friends who were historical and current victims and historical instigators of dating violence (Table 6.2). Friend current dating violence instigation was non-significant.

Table 6.2

Comparisons of friend dating violence and technology-assisted adolescent dating violence involvement for males and females ($n = 82-84; 121$)

Friend Dating Violence	TAADVA							
	None <i>Mdn</i>	Range	Inst -vic <i>Mdn</i>	Range	Mann- Whitney <i>U</i>	z- score	p-value	Effect size(<i>r</i>)
Males								
Friend historical victimisation	1.00	1.00-4.00	1.00	1.00-3.00	818.00	-0.511	.610	-0.06
Friend current victimisation	1.00	1.00-5.00	1.20	1.00-4.40	777.50	-0.781	.435	-0.09
Friend historical instigation	1.00	1.00-4.00	1.00	1.00-3.40	807.00	-0.432	.666	-0.05
Friend current instigation	1.00	1.00-3.20	1.00	1.00-3.20	810.50	-0.190	.849	-0.02
Females								
Friend historical victimisation	1.00	1.00-3.00	1.00	1.00-5.00	1183.50	-2.672	.008*	-0.24
Friend current victimisation	1.00	1.00-5.00	1.80	1.00-5.00	855.50	-4.105	.000*	-0.37
Friend historical instigation	1.00	1.00-3.00	1.00	1.00-5.00	1169.00	-2.748	.006*	-0.25
Friend current instigation	1.00	1.00-3.00	1.00	1.00-5.00	1401.00	-1.670	.095	-0.15

Note: *Significant at the .01 level (2-tailed). Bonferroni corrected (.05/4)

6.3.2.1.2. ADVA

For males, the ADVA involved group in comparison to those not involved reported having significantly more friends who were historical and current instigators of dating violence (Table 6.3). Friend historical and current dating violence victimisation was non-significant. For females, the ADVA

involved group in comparison to those not involved reported having significantly more friends who were historical and current victims and instigators of dating violence (Table 6.3).

Table 6.3

Comparisons of friend dating violence and adolescent dating violence involvement for males and females ($n = 91-94; 133$)

Friend Dating Violence	ADVA							
	Non Mdn	Range	Inst -vic Mdn	Range	Mann- Whitney U	z- score	p-value	Effect size(r)
Males								
Friend historical victimisation	1.00	1.00-2.00	1.00	1.00-4.00	765.00	-2.478	.013	-0.26
Friend current victimisation	1.00	1.00-5.00	1.40	1.00-4.40	718.50	-2.222	.026	-0.23
Friend historical instigation	1.00	1.00-2.00	1.00	1.00-4.00	706.50	-2.705	.007*	-0.28
Friend current instigation	1.00	1.00-2.00	1.00	1.00-3.20	719.0	-2.824	.005*	-0.30
Females								
Friend historical victimisation	1.00	1.00-3.00	1.00	1.00-5.00	1480.50	-4.102	.000*	-0.36
Friend current victimisation	1.00	1.00-3.20	1.80	1.00-5.00	1042.50	-5.317	.000*	-0.46
Friend historical instigation	1.00	1.00-3.00	1.00	1.00-5.00	1422.50	-4.356	.000*	-0.38
Friend current instigation	1.00	1.00-3.00	1.00	1.00-5.00	1814.00	-2.931	.003*	-0.25

Note: *Significant at the .01 level (2-tailed). Bonferroni corrected

6.3.2.2. Comparisons between TAADVA and ADVA involved and non-involved groups with attachment

Hypothesis 2: *Those involved in TAADVA and ADVA will report higher avoidant and anxious attachment insecurity to parents, friends, and partners than those not involved*

6.3.2.2.1. TAADVA

Males who were involved in TAADVA, in comparison to those not involved, had significantly lower scores (i.e. less secure) on maternal and friend avoidant attachment (Table 6.4). Females who were involved in TAADVA, in comparison to those not involved, had significantly lower scores (i.e. less secure) on maternal and paternal avoidant attachment (Table 6.4). This suggests that male and female adolescents who were involved in TAADVA had greater avoidant attachment to a mother and/or father and/or friend than those not involved in TAADVA. The other six attachment variables for both genders were non-significant.

Table 6.4

Comparisons of attachment and technology-assisted adolescent dating violence involvement for males and females
(*n* =71-89; 114-119)

Attachment Style and Person	TAADVA							
	None <i>Mdn</i>	Range	Inst -vic <i>Mdn</i>	Range	Mann- Whitney <i>U</i>	z- score	<i>p</i> - value	Effect size(<i>r</i>)
Males								
Avoidant mother	5.67	3.00-7.00	4.33	1.50-7.00	457.00	-3.226	.001*	-0.36
Avoidant father	4.50	1.00-7.00	3.83	1.17-7.00	530.00	-2.281	.023	-0.26
Anxious mother	1.00	1.00-6.00	1.00	1.00-7.00	743.50	-0.521	.602	-0.06
Anxious father	1.00	1.00-7.00	1.00	1.00-7.00	658.50	-1.100	.271	-0.12
Avoidant partner	4.00	1.00-7.00	4.00	2.33-7.00	704.00	-0.852	.394	-0.09
Anxious partner	2.67	1.00-7.00	2.17	1.00-7.00	688.00	-1.023	.306	-0.11
Avoidant friend	5.17	3.00-7.00	4.25	2.00-7.00	495.00	-2.866	.004*	-0.32
Anxious friend	2.00	1.00-7.00	2.50	1.00-7.00	724.00	-0.674	.501	-0.07
Females								
Avoidant mother	5.50	2.00-7.00	4.67	1.00-7.00	1018.00	-2.976	.003*	-0.27
Avoidant father	5.00	1.00-7.00	4.00	1.00-7.00	966.00	-2.782	.005*	-0.26
Anxious mother	1.00	1.00-6.00	1.33	1.00-7.00	1141.50	-2.478	.013	-0.23
Anxious father	1.00	1.00-7.00	1.00	1.00-7.00	1187.00	-1.571	.116	-0.15
Avoidant partner	4.00	1.83-7.00	4.50	1.00-7.00	1332.00	-1.188	.235	-0.10
Anxious partner	3.83	1.00-5.00	3.00	1.00-7.00	1478.00	-0.357	.721	-0.03
Avoidant friend	5.75	3.67-7.00	5.50	1.00-7.00	1320.50	-1.249	.212	-0.11
Anxious friend	1.83	1.00-7.00	2.00	1.00-7.00	1373.50	-0.972	.331	-0.09

Note: *Significant at the .006 level (2-tailed) Bonferroni corrected (.05/8)

6.3.2.2.2. ADVA

For males, there were no significant differences between the ADVA involved and non-involved groups on the attachment variables (Table 6.5). For females, the ADVA involved group in comparison to those not involved reported significantly higher scores on maternal and paternal anxious attachment (Table 6.5), suggesting that ADVA involved female adolescents were more anxiously attached to both parents than those not involved in ADVA. The other six attachment variables were non-significant.

Table 6.5

Comparisons of attachment and adolescent dating violence involvement for males and females ($n = 90-93$; 124-131)

Attachment Style and Person	ADVA							
	None <i>Mdn</i>	Range	Inst -vic <i>Mdn</i>	Range	Mann-Whitney <i>U</i>	<i>z</i> -score	<i>p</i> -value	Effect size(<i>r</i>)
Males								
Avoidant mother	5.25	1.33-7.00	4.67	1.50-7.00	734.00	-1.612	.107	-0.17
Avoidant father	4.50	1.00-7.00	4.00	1.33-7.00	652.50	-1.749	.080	-0.18
Anxious mother	1.00	1.00-7.00	1.00	1.00-6.00	850.50	-0.768	.442	-0.08
Anxious father	1.00	1.00-7.00	1.00	1.00-4.33	763.50	-0.866	.386	-0.09
Avoidant partner	4.00	1.00-7.00	4.00	2.33-7.00	847.50	-0.673	.501	-0.07
Anxious partner	2.67	1.00-7.00	2.33	1.00-5.33	908.00	-0.169	.866	-0.02
Avoidant friend	5.00	3.00-7.00	4.33	2.00-7.00	749.00	-1.490	.136	-0.15
Anxious friend	2.00	1.00-7.00	2.00	1.00-7.00	878.00	-0.430	.667	-0.05
Females								
Avoidant mother	5.33	1.00-7.00	4.83	1.00-7.00	1681.00	-2.079	.038	-0.18
Avoidant father	4.33	1.00-7.00	4.00	1.00-7.00	1589.50	-1.645	.100	-0.15
Anxious mother	1.00	1.00-7.00	1.33	1.00-7.00	1489.00	-3.352	.001*	-0.29
Anxious father	1.00	1.00-6.00	1.33	1.00-7.00	1391.00	-2.925	.003*	-0.26
Avoidant partner	4.00	1.00-7.00	4.42	1.00-7.00	1629.00	-2.215	.027	-0.19
Anxious partner	3.17	1.00-7.00	3.33	1.00-7.00	1818.00	-1.352	.176	-0.12
Avoidant friend	5.67	1.00-7.00	5.50	1.33-7.00	1906.50	-0.907	.365	-0.08
Anxious friend	1.00	1.00-7.00	2.67	1.00-7.00	1638.00	-2.252	.024	-0.20

Note: *Significant at the .006 level (2-tailed). Bonferroni corrected (.05/8)

6.3.2.3. Correlations between friend dating violence and attachment

Hypothesis 3: *There will be an association between having friends with experience of dating violence and avoidant and anxious attachment insecurity.* For males, all correlations between friend dating violence and avoidant and anxious attachment to parents, friends and partners were non-significant (Table 6.6). For females, the number of friends with experience of historical dating violence victimisation and instigation and current instigation was negatively associated with maternal avoidant attachment (Table 6.6). In addition, the number of friends with experience of current dating violence

instigation was positively associated with paternal and friend anxious attachment. All other correlations were non-significant.

Table 6.6

Correlations between friend dating violence and attachment style for males and females ($n = 107-111; 147-154$)

Friend Dating Violence	Attachment Style and Person r_s							
	Avoid mother	Avoid father	Anxious mother	Anxious father	Avoid partner	Anxious partner	Avoid friend	Anxious friend
Males								
Friend historical victim	.024	-.017	.156	.115	-.245	.113	-.035	.057
Friend current victim	.017	.027	.028	.049	.054	.048	.084	-.056
Friend historical instigator	.098	-.020	.118	.089	-.188	.069	-.075	.049
Friend current instigator	-.034	-.114	.128	.124	-.132	.073	-.032	.026
Females								
Friend historical victim	-.254**	-.172	.185	.193	-.068	.060	-.132	.157
Friend current victim	-.220	-.095	.176	.178	.085	.082	-.054	.124
Friend historical instigator	-.249*	-.139	.113	.205	-.070	.154	-.186	.242
Friend current instigator	-.279**	-.120	.181	.342**	-.092	.144	-.238	.280**

Note: *Significant at the .002 level, ** .001 (2-tailed) Bonferroni corrected (.05/32)

6.3.2.4. Correlations between attachment to parents, peers and partners

Hypothesis 4: *There will be an association between adolescent attachment security to parents, attachment security to friends, and attachment security to partners.* Table 6.7 shows that there were a total of 14 significant associations for males and 17 for females within and/or between avoidant and anxious attachment styles to parents, friends and partners. All other correlations were non-significant. This indicates that for both male and female adolescents, being securely attached within the avoidant and anxious attachment styles to parents, friends and partners tends to be associated with similar secure styles to others within the same attachment type (i.e. avoidant or anxious). Furthermore, avoidant attachment security to a mother was associated with anxious attachment security to both parents for males and females. In addition, avoidant attachment security to a mother was also associated with anxious attachment security to a partner and friend; avoidant attachment security to a father was associated with anxious attachment security to a father and friend; and avoidant attachment security to a friend was associated with anxious attachment security to a friend for females. It is worth mentioning that the correlations between these variables for males and females (Table 6.7) are not large enough to

suggest that there is multicollinearity between attachment relationships (i.e. most are small (0.10) to medium (0.30) range).

Table 6.7

Correlations between attachment style to parents, peers and partners for males and females ($n = 112-115; 148-155$)

Attachment Style and Person	Attachment Style and Person r_s							
	Avoid mother	Avoid father	Anxious mother	Anxious father	Avoid partner	Anxious partner	Avoid friend	Anxious friend
Males								
Avoidant mother	1.000	.555**	-.294**	-.294*	.309**	-.067	.408**	-.220
Avoidant father		.1000	-.231	-.275	.288*	.149	.484**	-.181
Anxious mother			1.000	.545**	-.107	.340**	-.198	.505**
Anxious father				1.000	-.040	.487**	-.135	.406**
Avoidant partner					1.000	-.064	.414**	-.161
Anxious partner						1.000	.083	.378**
Avoidant friend							1.000	-.198
Females								
Avoidant mother	1.000	.450**	-.481**	-.313**	.135	-.297**	.387**	-.373**
Avoidant father		.1000	-.189	-.389**	.130	-.082	.300**	-.263**
Anxious mother			1.000	.417**	-.058	.315**	-.148	.516**
Anxious father				1.000	.036	.253*	-.137	.376**
Avoidant partner					1.000	-.077	.250*	-.186
Anxious partner						1.000	-.104	.447**
Avoidant friend							1.000	-.342**

Note: *Significant at the .002 level, *.001 (2-tailed) Bonferroni corrected (.05/28)

6.3.2.5. Summary

The first hypothesis was partially supported for TAADVA (females) and ADVA (both sexes). Females involved in TAADVA reported having more friends with experience of historical dating violence victimisation and instigation and current instigation compared to those not involved. Males involved in ADVA reported having more friends with experience of historical and current dating violence instigation and this was the case for all four dating violence variables for females. The second hypothesis was partially supported for TAADVA (both sexes) and ADVA (females). Those involved in TAADVA reported higher insecure avoidant attachment to a mother and friend (for males) and to a

mother and father (for females) compared to those not involved. Females involved in ADVA reported greater maternal and paternal anxious attachment insecurity. The third hypothesis was partially supported for females only. For females, having more friends with experience of historical dating violence victimisation, instigation and current instigation was associated with maternal avoidance and friend current instigation was associated with paternal anxious attachment. The fourth hypothesis was partially supported. Attachment to parents, friends, and partners tended to be related within and sometimes between avoidant and anxious attachment styles.

6.3.3. Tests of whether parental attachment mediates the relationship between friend dating violence and self-reported TAADVA and ADVA

Based on the analyses from the previous section, five models were proposed and tested using mediation analyses (Models 1, 2 and 3) and backwards-stepwise binary logistic regression (Models 4 and 5). Two of these models test potential mediating relationships of maternal avoidant attachment between friend experience of historical dating violence victimisation (**Model 1**) and instigation (**Model 2**) and self-reported TAADVA. Compared to those not involved in TAADVA, female adolescents who reported TAADVA involvement reported having more friends with historical experience of dating violence victimisation and instigation, which in turn, was associated with maternal avoidant attachment insecurity. Furthermore, maternal avoidant attachment insecurity was found to be higher in females involved in TAADVA compared to those not involved. The findings also suggest that there is a potential mediating relationship of paternal anxious attachment between the number of friends with experience of current dating violence instigation and self-reported ADVA (**Model 3**). Compared to females not involved in ADVA, those that were ADVA instigator-victims reported having more friends with current experience of dating violence instigation, which in turn was associated with paternal anxious attachment insecurity. Furthermore, paternal anxiety was found to be higher in females involved in ADVA. This led to Hypothesis 5: *Maternal avoidant attachment will mediate the relationship between friend historical dating violence victimisation and instigation and self-reported TAADVA and paternal anxious attachment will mediate the relationship between friend current dating violence instigation and self-reported ADVA for females.*

Compared to those not involved in ADVA, females who reported ADVA involvement also reported having more friends who were historical victims (**Model 4**) and instigators (**Model 5**) of

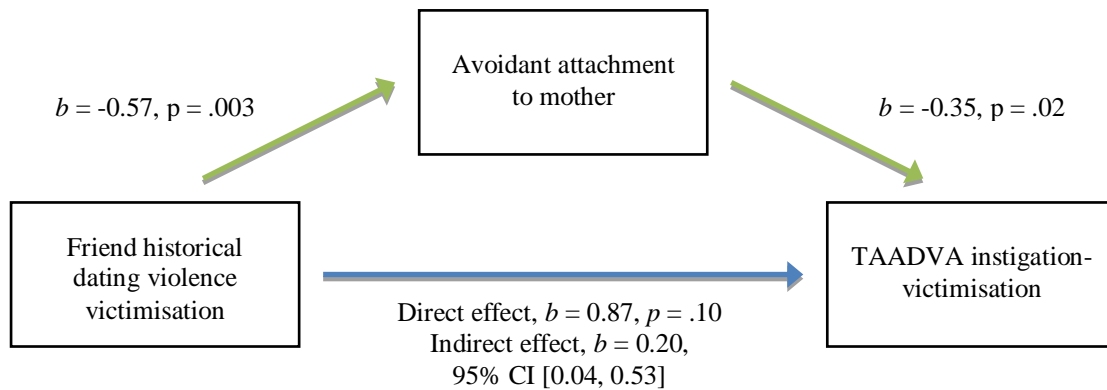
dating violence. The number of friends who had historically experienced dating violence was associated with maternal avoidant attachment, however maternal avoidance was not associated with ADVA; maternal anxious attachment was. Therefore, it appears that these different attachment factors may independently predict self-reported ADVA rather than mediating the relationship between the number of friends who were historically victims and instigators of dating violence. This led to Hypothesis 6: *Friend historical dating violence victimisation and instigation will predict self-reported ADVA independently from maternal anxious and avoidant attachment for females.*

There was no evidence that friend dating violence was associated with self-reported TAADVA involvement for males, therefore no relationships for attachment to mediate. Although the number of friends who were historic and current instigators of dating violence was higher for males who reported ADVA, neither of these variables was associated with attachment indicating that attachment does not mediate these associations. The following analyses are therefore reported on for females only and for TAADVA (Models 1 and 2) followed by ADVA (Models 3, 4 and 5).

6.3.3.1. Model 1: Does maternal avoidant attachment mediate the relationship between friend historical dating violence victimisation and female self-reported TAADVA?

Mediation analysis was conducted in order to test whether maternal avoidant attachment mediated the relationship between friend historical dating violence victimisation and female self-reported TAADVA. Figure 6.1 shows that friend historical dating violence victimisation (negatively) predicted maternal avoidant attachment (i.e. attachment insecurity). Maternal avoidant attachment security also (negatively) predicted self-reported TAADVA (i.e. attachment insecurity predicted self-reported TAADVA involvement). Furthermore, friend historical dating violence victimisation was a not significant predictor of self-reported TAADVA when maternal avoidance was added to the model (direct effect). There was a significant indirect effect of friend historical dating violence victimisation on self-reported TAADVA instigation-victimisation through avoidant attachment insecurity to a mother, $b = 0.200$, BCa CI [0.037, 0.531] (Figure 6.1).

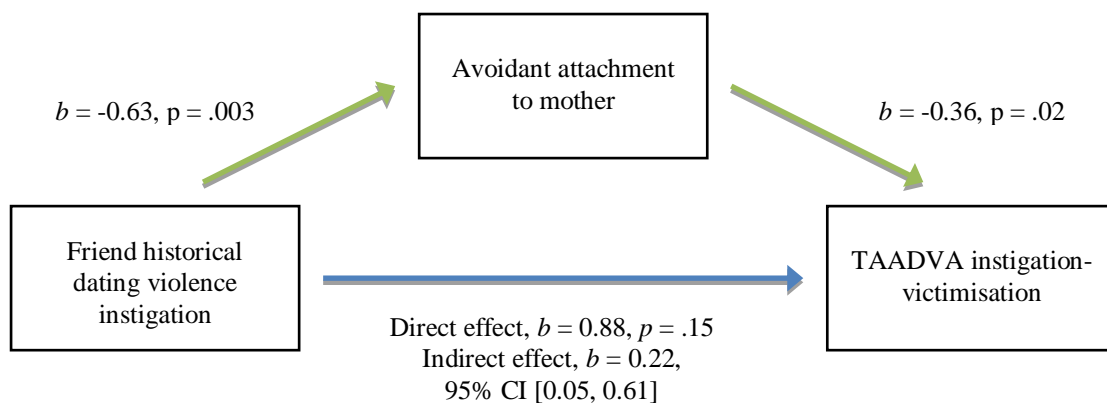
Figure 6.1: Model 1 ($n=119$)



6.3.3.2. Model 2: Does maternal avoidant attachment mediate the relationship between friend historical dating violence instigation and female self-reported TAADVA?

Mediation analysis was conducted in order to test whether maternal avoidant attachment mediated the relationship between friend historical dating violence instigation and female self-reported TAADVA. Figure 6.2 shows that friend historical dating violence instigation (negatively) predicted maternal avoidant attachment (i.e. attachment insecurity). Maternal avoidant attachment security also (negatively) predicted self-reported TAADVA (i.e. attachment insecurity predicted self-reported TAADVA involvement). Furthermore, friend historical dating violence instigation was a not significant predictor of self-reported TAADVA when maternal avoidance was added to the model (direct effect). There was a significant indirect effect of friend historical dating violence instigation on self-reported TAADVA instigation-victimisation through avoidant attachment insecurity to a mother, $b = 0.222$, BCa CI [0.048, 0.611] (Figure 6.2).

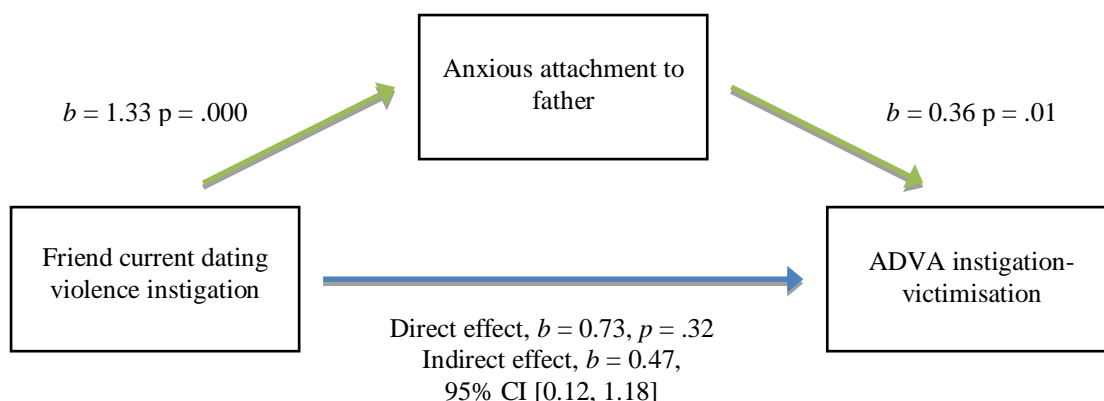
Figure 6.2: Model 2 ($n=119$)



6.3.3.5. Model 3: Does paternal anxious attachment mediate the relationship between friend current dating violence instigation and female self-reported TAADVA?

Mediation analysis was conducted in order to test whether paternal anxious attachment mediated the relationship between friend current dating violence instigation and female self-reported ADVA. Figure 6.3 shows that friend current dating violence instigation (positively) predicted paternal anxious attachment (i.e. attachment insecurity). Paternal anxious attachment insecurity also (positively) predicted self-reported ADVA (i.e. attachment insecurity predicted self-reported ADVA). Furthermore, friend current dating violence instigation was a not significant predictor of self-reported ADVA when paternal anxious attachment was added to the model (direct effect). There was a significant indirect effect of friend current dating violence instigation on self-reported ADVA instigation-victimisation through anxious attachment insecurity to a father, $b = 0.472$, BCa CI [0.115, 1.183] (Figure 6.3).

Figure 6.3: Model 3 ($n = 124$)



6.3.3.4. Model 4: Does friend historical dating violence victimisation predict female self-reported ADVA independently from maternal anxious and avoidant attachment?

Backwards-stepwise binary logistic regression analysis was conducted in order to test whether friend historical dating violence victimisation predicted self-reported ADVA independently from maternal anxious and avoidant attachment. A test of the first step in the model fit with the friend historical dating violence victimisation factor against a constant only model was significant ($\chi^2(1) = 16.836$, $p = .000$), suggesting that the model explains a significant amount of the original variability (Table 6.8). Nagelkerke's R^2 score of .161 indicated that the combination of variables accounted for 16% of variance in female ADVA involvement as an instigator-victim.

Table 6.8
Model 3 ($n = 131$)

	B (SE)	95% CI for OR		
		Lower	EXP(B)	Upper
Step 1				
Constant	-1.90 (0.73)			
Friend historical dating violence victim	1.74** (0.64)	1.63	5.69	19.87
Step 2				
Constant	-2.57 (0.76)			
Friend historical dating violence victim	1.57* (0.62)	1.42	4.83	16.40
Anxious attachment to mother	0.44** (0.15)	1.17	1.56	2.07

Note: Step 1: $R^2 = .03$ (Hosmer and Lemeshow), $.12$ (Cox & Snell), $.16$ (Nagelkerke). Model $\chi^2(1) = 16.836$, $p < .001$. Step 2: $R^2 = .37$ (Hosmer and Lemeshow), $.20$ (Cox & Snell), $.26$ (Nagelkerke). Model $\chi^2(2) = 28.593$, $p < .001$. * $p < .05$, ** $p < .01$

Friend historical dating violence victimisation independently predicted whether female adolescents were an ADVA instigator-victim ($b = 1.74$, Wald $\chi^2(1) = 7.41$, $p = .006$). The odds ratio (5.686) indicates that when friend historical dating violence victimisation is raised by one unit on this measure (i.e. one more friend with experience), the change in the odds of being an ADVA instigator-victim (rather than not involved) increases, therefore female adolescents were over five-and-a-half times more likely to be an instigator-victim of ADVA for every additional friend who had a history of dating violence victimisation.

A test of the model fit in the second step with the addition of the maternal anxious and avoidant attachment factors was significant ($\chi^2(2) = 28.593$, $p = .000$), suggesting that the model explains a significant amount of the original variability and was better at predicting the outcome than the last step. This is represented in the difference in the -2 Log Likelihood value for Step 1 = 163.844 compared to Step 2 = 152.087. Nagelkerke's R^2 score of $.262$ indicated that the combination of variables accounted for 26% of variance in female ADVA involvement as an instigator-victim (Table 6.8). In Step 2, only the maternal anxious attachment variable added to the model, in addition to the friend historical dating violence victimisation variable from the previous step were retained in the final model. The positive association between historical friend dating violence victimisation remains significant ($b = 1.57$, Wald $\chi^2(1) = 6.35$, $p = .012$). The odds ratio (4.825) indicates that when friend historical dating violence victimisation is raised by one unit on this measure, the change in the odds of being an ADVA instigator-victim (rather than not involved) increases, therefore female adolescents were almost five

times more likely to be an instigator-victim of ADVA. In addition, the positive association between anxious attachment insecurity to mother and self-reported ADVA is also significant ($b=0.44$, Wald $\chi^2(1)=9.40$, $p=.002$). The odds ratio (1.560) indicates that when anxious attachment to a mother is raised by one unit on this measure (i.e. more insecurely attached), the change in the odds of being a ADVA instigator-victim (rather than not involved) increases, therefore female adolescents were 1.5 times more likely to be an instigator-victim of ADVA. These results suggest that friend historical dating violence victimisation is an independent predictor of ADVA involvement that is not influenced by attachment, and anxious attachment insecurity to a mother also independently predicted ADVA.

6.3.3.5. Model 5: Does friend historical dating violence instigation predict female self-reported ADVA independently from maternal anxious and avoidant attachment?

Backwards-stepwise binary logistic regression analysis was conducted in order to test whether friend historical dating violence instigation predicted self-reported ADVA independently from maternal anxious and avoidant attachment. A test of the first step in the model fit with the friend historical dating violence instigation factor against a constant only model was significant ($\chi^2(1)=16.201$, $p=.000$), suggesting that the model explains a significant amount of the original variability (Table 6.9). Nagelkerke's R^2 score of .155 indicated that the combination of variables accounted for 15.5% of variance in female ADVA involvement as an instigator-victim.

Table 6.9
Model 4 ($n=131$)

	B (SE)	95% CI for OR		
		Lower	EXP(B)	Upper
Step 1				
Constant	-2.07 (0.78)			
Friend historical dating violence instigator	1.90* (0.69)	1.75	6.69	25.62
Step 2				
Constant	-2.85 (0.83)			
Friend historical dating violence instigator	1.79* (0.69)	1.56	5.99	23.08
Anxious attachment to mother	0.47** (0.15)	1.20	1.60	2.13

Note: Step 1: $R^2=.21$ (Hosmer and Lemeshow), .12 (Cox & Snell), .16 (Nagelkerke). Model $\chi^2(1)=16.201$, $p<.001$. Step 2 $R^2=.99$ (Hosmer and Lemeshow), .20 (Cox & Snell), .27 (Nagelkerke). Model $\chi^2(2)=29.278$, $p<.001$. * $p<.01$, ** $p<.001$

Friend historical dating violence instigation independently predicted whether female adolescents were an ADVA instigator-victim ($b=1.90$, Wald $\chi^2(1)=7.70$, $p=.006$). The odds ratio (6.692) indicates that when friend historical dating violence instigation is raised by one unit on this measure, the change in the odds of being an ADVA instigator-victim (rather than not involved) increases, therefore female adolescents were over 6.5 times more likely be an instigator-victim of ADVA for every additional friend who had a history of dating violence instigation.

A test of the model fit in the second step with the addition of the maternal anxious and avoidant attachment factors was significant ($\chi^2(2)=29.278$, $p=.000$), suggesting that the model explains a significant amount of the original variability and was better at predicting the outcome than the last step. This is represented in the difference in the -2 Log Likelihood value for Step 1=164.479 compared to Step 2=151.402. Nagelkerke's R^2 score of .268 indicated that the combination of variables accounted for 27% of variance in female ADVA involvement as an instigator-victim (Table 6.9). In Step 2, only the maternal anxious attachment variable added to the model, in addition to the friend historical dating violence instigation variable from the previous step were retained in the final model. The positive association between historical friend dating violence instigation remains significant ($b=1.79$, Wald $\chi^2(1)=6.78$, $p=.009$). The odds ratio (5.994) indicates that when friend historical dating violence victimisation is raised by one unit on this measure, the change in the odds of being a ADVA instigator-victim (rather than not involved) increases, therefore female adolescents were almost six times more likely to be an instigator-victim of ADVA. In addition, the positive association between anxious attachment to mother and self-reported ADVA is significant ($b=0.47$, Wald $\chi^2(1)=10.27$, $p=.001$). The odds ratio (1.598) indicates that when anxious attachment to a mother is raised by one unit on this measure (i.e. more insecurely attached), the change in the odds of being a ADVA instigator-victim (rather than not involved) increases, therefore female adolescents were over 1.5 times more likely to be an instigator-victim of ADVA. These results suggest that friend historical dating violence victimisation is an independent predictor of ADVA involvement that is not influenced by attachment, and anxious attachment insecurity to a mother also independently predicted ADVA.

6.3.3.6. Summary

The fifth hypothesis was therefore supported by Models 1-3, confirming that maternal avoidant attachment insecurity mediated the relationship between friend historical dating violence victimisation and instigation and self-reported TAADVA for females. Furthermore, paternal anxious

attachment insecurity mediated the relationship between friend current dating violence instigation and self-reported ADVA for females (i.e. there was an indirect effect of friend dating violence via the full mediation of maternal or paternal attachment insecurity). The sixth hypothesis was also supported by Models 4-5, confirming that friend historical dating violence victimisation and instigation and maternal anxious attachment insecurity independently predicted female ADVA.

6.3.3.4. Post-hoc power analysis

A post-hoc power analysis was conducted based on the alpha size (0.05), effect size (.5), and sample size of the binary logistic regression models (Models 4-5) for female ADVA. Post-hoc power analysis revealed that the achieved power for the significant friend historical dating violence victimisation and instigation predictors of ADVA in both steps in both models was 100%. The achieved power for the significant maternal anxious attachment predictor of ADVA in Model 4 and 5 was 78% and 82% respectively. The level of power was therefore approached or exceeded the suggested acceptable level of power of at least 80% for all variables (Cohen 1988).

6.4. Discussion

This chapter aimed to explore the influence of avoidant and anxious attachment to parents, friends, and partners on the relationship between friend dating violence and self-reported TAADVA and ADVA (not involved vs. instigator-victim). No other study has explored these factors together in terms of mediating relationships, despite both being identified as important in previous literature.

First, it was expected that friend dating violence would be related to self-reported TAADVA and ADVA and this hypothesis was partially supported. Females involved in TAADVA reported having more friends with experience of historical dating violence victimisation and instigation and current victimisation, and this was the case for all four friend dating violence variables for ADVA. The overlap of instigation-victimisation in the combined role of involvement may reflect these findings. Male ADVA instigator-victims reported having more friends with experience of historical and current dating violence instigation only. However, it is not known whether friend dating violence instigation leads to self-reported ADVA instigation or victimisation first (i.e. instigation then a partner retaliates, or victimisation followed by retaliation instigation). These findings support previous research regarding the role of friend dating violence in ADVA (Ellis, Chung-Hall, and Dumas 2013, Foshee, Rays, and

Ennett 2011 and Foshee et al. 2013) and lend support to the social learning perspective (Bandura 1971, 1973, 1977), that relationship expectations and behaviours are modelled from peers. These findings also confirm that peer influences are more important for females in self-reported TAADVA than they are for males, as found in Chapter 5.

Second, it was expected that avoidant and anxious attachment to parents, friends, and partners would be related to self-reported TAADVA and ADVA. The second hypothesis was partially supported for TAADVA (both sexes) and ADVA (for females), providing support for the role of attachment insecurity in unhealthy relationship behaviours and dating violence (Bowlby 1984). Adolescents who were involved in TAADVA reported higher maternal (both sexes), paternal (females), and friend (males) avoidance. Parental (and friend for males) avoidant attachment security therefore appears to be a protective factor against TAADVA. However, the break away from a parent and/or friend may explain how violence is legitimised in relationships through the transfer of insecure relationship behaviours from parents and/or friends to partners. This is consistent with literature that has found attachment insecurity with parents to be associated with negative and violent/controlling behaviours in romantic relationships (Booth-LaForce and Kerns 2009, Furman and Collins 2009 and Hartup 2009). Avoidant adolescents who learn and prefer to distance themselves from or become accustomed to being hostile towards their significant others may transfer such behaviours in their own relationships meaning TAADVA is more likely as a result of poor attachments and relationship skills. Aggression may also be a response to closeness or unwanted intimacy seeking (Moretti, Dasilva, and Holland 2004). The use of ECT may facilitate avoidant adolescents' ability to be abusive from a distance.

The findings lend support and extend Wright's (2014) findings that maternal avoidance had an indirect effect on TAADVA that was mediated by anxious partner attachment insecurity, suggesting an indirect role of maternal avoidance in self-reported TAADVA. However, the association between avoidance and TAADVA is in contrast to other research that found associations with attachment avoidance and decreased romantic electronic intrusion, and anxiety with increased electronic intrusion among young adults (Marshall et al. 2013 and Reed, Tolman and Safver 2015), and may reflect a preference to abuse or control a partner from a distance. Surprisingly, friend (for females) and partner attachment security were not significantly associated with self-reported TAADVA or ADVA, and may

mean that such relationships are superficial rather than reach the status as attachment relationships (Furman and Collins 2009).

Females involved in ADVA were more anxiously attached to both parents than those not involved, suggesting that parental anxious attachment security is a protective factor for female ADVA involvement. These findings are consistent with research to associate anxious insecurity with more coercive and obsessive strategies to regain proximity that may lead adolescents to resort to ADVA (Bowlby 1984 and Hazan and Shaver 1987, 1994), particularly for females (Moretti Dasilva, and Holland 2004). Anxiously attached individuals may prefer face-to-face forms of ADVA as this provides closer proximity to the partner. However, the results are in contrast to Miga et al. (2010) and Ulloa, Martinez-Arango, and Hokoda's (2014) research that found relationships between anxious attachment insecurity with a partner and ADVA. Anxiously attached individuals may have difficulties in forming healthy attachments with others if their preoccupation with an insecure attachment to a parent prevents them from doing so successfully (Bowlby 1977), for example, by learning healthy relationship and communication skills and expression of emotions. They may also be vulnerable to victimisation and the acceptance of ADVA victimisation if preoccupied with an abusive partner.

Third, it was proposed that friend dating violence would be related to avoidant and anxious attachment and this hypothesis was partially supported for females only. For females, maternal avoidance was associated with friend historical dating violence victimisation and instigation, which each predicted TAADVA involvement. In addition, paternal anxious attachment insecurity was associated with friend current instigation, which each predicted ADVA involvement. This therefore provided evidence for potential mediating relationships of attachment resulting in an indirect effect of friend dating violence on self-reported TAADVA and ADVA for females tested with Hypothesis five.

Although friend dating violence instigation was associated with male ADVA involvement, and maternal and friend avoidance was associated with TAADVA, there were no associations between friend dating violence and attachment for males and therefore the correlates were independent influences with no mediating relationships to test. The findings supporting Hypothesis 6 (Models 4-5) confirmed independent relationships of the friend historical dating violence victimisation and instigation and maternal anxious attachment variables that were correlated in females' self-reported ADVA. As the total variance was not explained, it is likely that there is a third or fourth influencing variable (e.g. family violence, harsh parental punishment, attitudes, or other peer, situational, and

individual factors). Future research should investigate other potential influencing factors that may contribute towards explaining this variance. As attachment theory appears to account for several family influence, personal, Psychological Adjustment and Personal Competency (PAPC), and attitudinal factors found to be associated with ADVA/TAADVA (see Chapter 2), the role of attachment and other PAPC-related influences as a mediating factors seems a promising line of investigation. For example, Follingstad et al. (2002) found that the relationship between anxious attachment and controlling a partner was mediated by angry temperament. Furthermore, Creasey and Hesson-McInnis (2001) identified a number of PAPC factors related to insecure and anxious attachment styles (i.e. difficulties and less confidence regulating emotions when distressed with a partner or during conflicts, and feeling anger, sadness and fear during interactions with a partner) that should be considered as in future research as predictors, mediators, moderators and interacting relationships in addition to attachment.

Fourth, it was expected that attachment to different people (i.e. parents, friends, and partners) would be related and this hypothesis was confirmed, consistent with previous research (Furman et al. 2002 and Doyal et al. 2009). Attachments to different people within the same attachment type (avoidant or anxious) tended to be related for both genders (i.e. between both parents, between parents and friends, between parents and partners, and between partners and friends). Avoidant attachment to a parent was also related to anxious attachment to the same or both parents, (and to peers and partners for females). This finding lends further support to the role of parent attachments in adolescents' attachments to others outside the family.

Fifth, it was expected that maternal avoidant attachment would mediate the relationship between friend historical dating violence and female self-reported TAADVA, and paternal anxious attachment would mediate the relationship between friend current dating violence instigation and female self-reported ADVA where significant associations were found in terms of the third hypothesis. This hypothesis was confirmed, indicating that the influence of the number of friends who engage in dating violence is weakened with the addition of the maternal avoidant attachment variable for TAADVA and paternal anxious attachment variable for ADVA. Therefore, the number of friends with experience of dating violence was indirectly related to self-reported TAADVA and ADVA for females via attachment insecurity to a mother (avoidant) and father (anxious). These findings are consistent with research that found parental influences to be more influential in adolescent romantic relationship security (Doyle et al. 2009) and dating violence (Miller et al. 2009), and in contrast to research that

suggests peer influences are more important than parents (Arriga and Foshee 2004, Furman et al. 2002, Linder and Collins 2005 and Laible, Carlo, and Raffaelli 2000).

In terms of TAADVA, the findings suggest that the influence of friend historical dating violence victimisation and instigation (i.e. the potential modelling of dating violence behaviours in adolescents own romantic relationships) operates via maternal avoidance (i.e. the distancing from the mother/maternal hostility). The influence of having friends who engage in dating violence may operate via attachment by (a) providing avoidant adolescents with unhealthy expectations of relationships who do not have secure-base attachments to build healthy relationships from, and (b) activating and/or enhancing these fears of intimacy with intimate partners, poor emotional regulation/expression and relationship skills. The finding from the initial correlations that maternal avoidance was related to friend avoidance and anxious attachment with a friend and partner may suggest that such adolescents become preoccupied in their peer and romantic relationships at the expense of the distancing from the mother. Research has found that adolescents with insecure attachments to mothers are more likely to turn to peers and romantic partners as attachment figures (Freeman and Brown 2001 and Nickerson and Nagle 2005). This mediating relationship may be explained via the experience and normalisation of insecure and problematic interpersonal relationships (i.e. with a mother and poor role models of friends who are victims and/or instigators of dating violence). Insecure adolescents may also experience rejection by peers (Allen and Land 1999) and possibly prefer ECT as a method to maintain relationships at a distance as this avoids close intimate contact.

In terms of ADVA, the findings suggest that the influence of friend current dating violence instigation operates via paternal anxious attachment insecurity (i.e. the preoccupation with a father's availability and responsiveness). Having friends who engage in dating violence may operate via paternal anxious attachment by (a) justifying or normalising ADVA behaviours that satisfy anxious preoccupation with intimate others, and (b) activating and/or enhancing preoccupied, obsessive and controlling feelings and behaviour toward males and potential romantic partners. Insecure attachment to a father in addition to having friends with experience of dating violence victimisation may have implications for female adolescents' own expectations about relationships and relationship skills. The findings from the initial correlations also confirmed associations between paternal anxiety and anxious attachment to partners and friends, highlighting the interrelationship between poor attachments and relationship functioning between different significant others. From a rejection sensitivity perspective,

ADVA may be explained similarly by an attempt to regain control or to prevent rejection through coercion (i.e. instigation) or compliance (i.e. potential victimisation or acceptance of an unhealthy relationship; Downey, Bonica, and Rincón 1999). The theoretical perspective of learned helplessness may also help to explain the acceptance of the position of a victim within interpersonal relationships and a view that such relationships are normal (Fife 2011 and McClennen 2010). This may explain how adolescents become victims themselves, although young women may then become instigators too as a result of retaliation or coping/adaptation to their position. However, it is not known whether instigation and victimisation occur in the same relationship or in different ones over time. The learned helplessness perspective has also been criticised for being deterministic in its view of the helpless victim (Fife 2011 and McClennen 2010).

In summary, there were differences in the correlates and mediating relationships between factors for TAADVA and ADVA and across the sexes. For example, friend dating violence predicted TAADVA for females and ADVA for both sexes. Avoidant attachment was related to TAADVA for both sexes but anxious attachment was only related to female ADVA. Mediation analyses confirmed an indirect effect of friend dating violence through maternal attachment avoidance (for TAADVA) and paternal attachment anxiety (for ADVA) for females. The findings regarding attachment insecurity may suggest that violence becomes legitimised in relationships or that adolescents become desensitised or accustomed to using violence as a result of poor emotional ties and relationship skills and the normalisation of ADVA/TAADVA within relationships to meet attachment needs.

6.4.1. Implications of the findings

6.4.1.1. Theoretical implications

These findings highlight that although friend dating violence is important in self-reported TAADVA (for females) and ADVA (males and females), for females, maternal avoidance (for TAADVA) and paternal anxiety (for ADVA) mediated this relationship in predicting self-reported TAADVA and ADVA. Therefore, for females, these friend dating violence factors influenced self-reported TAADVA and ADVA via maternal avoidance or paternal anxiety. All other significant correlations and predictors were independent influences. This highlights the importance of addressing socio-cognitive issues such as insecure attachment characterised by avoidance and anxiety to parents in particular, but also peers and partners, in addition to socio-cultural peer influences in future

theorisation, explanations, and interventions for ADVA and TAADVA. This would help to address the use and normalisation of dating violence in adolescents own and peer romantic relationships, as well as insecure attachments to significant others, and to encourage positive relationship functioning at familial, peer and personal levels. Future research should explore how attachment insecurity is heightened in relationships and the meaning, motives, and impact of subsequent TAADVA and/or ADVA behaviours from an attachment perspective. In addition, research that explores a diverse range of socio-cultural and socio-cognitive factors and their potential mediating, moderating and interacting relationships would help develop more comprehensive explanations of ADVA and TAADVA.

6.4.1.2. Practical implications

The practical implications of the findings in this chapter confirm and extend those in Chapter 5. Strategies that aim to educate parents about the importance of developing secure attachments with their children and how to enhance such relationship characteristics appear to provide opportunities to reduce ADVA/TAADVA through the establishment and replication of good quality healthy relationships and relationship functioning (i.e. low anxiety, avoidance, and healthy conflict resolution and equality in relationships). This would hopefully then reflect in adolescents' relationships with peers and partners, in addition to having other benefits in terms of positive adjustment (Laible, Carlo, and Raffaelli 2000). Promoting good quality relationships between young people and their parents through parenting classes, in addition to between peers and partners in school settings, may show promise for prevention and intervention strategies. The findings in this chapter also confirm the need to educate young people regarding healthy relationships and dating violence through social learning, challenging violence tolerant attitudes and encouraging peer bystander intervention in ADVA/TAADVA. Furthermore, prevention and intervention efforts should take into account that factors associated with TAADVA and ADVA may differ in addition to recognising gender differences in factors thought to be important in dating violence.

6.4.2. Limitations

As with any research and as stated in the previous chapters, the findings should be considered within the context of their limitations (i.e. potential for response bias in self-report surveys; Bryman 2004). As this research is cross-sectional, it could also be that adolescents' self (and possibly friend)

experiences of dating violence lead them to avoid or become anxiously attached to parents and friends. Another limitation of this study is that the outcome variables focused on TAADVA/ADVA involvement as an instigator-victim and did not examine victims or instigators only. As those in these roles of involvement had relatively smaller small sizes, it was not feasible to conduct analyses on them in this thesis. Future research can do this on a larger scale.

6.5. Conclusion

This chapter explored the role of attachment to parents, friends, and partners on the relationship between friend dating violence and self-reported TAADVA and ADVA. Friend dating violence and/or attachment was associated with TAADVA and/or ADVA for males and females, however mediating relationships of parental attachment insecurity between friend dating violence and TAADVA and ADVA were found for females, indicating these attachment characteristics were more influential than peer influences alone. The findings suggest that those with loose associations in the family are most likely to engage in TAADVA/ADVA, however the nature of these attachments and peer influences differ for ADVA and TAADVA across the sexes. The following chapter discusses the overall contribution of the research presented in this thesis and its limitations, theoretical and practical implications, and future directions for research.

Chapter 7: Discussion

7.1. Introduction

In this final chapter, the overall contribution of the findings of this research is critically evaluated along with its limitations, implications, and directions for future research. This thesis had three aims: (1) to identify the nature and prevalence of Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA); (2) to determine whether characteristics that have been identified as related to Adolescent Dating Violence and Abuse (ADVA) are also associated with TAADVA involvement (i.e. friend dating violence, attachment style, past ADVA, relationship closeness, age of dating partner, and age); and (3) to examine whether avoidant and anxious attachments to parents, friends, and partners influence the relationship between friend dating violence experiences and self-reported TAADVA and ADVA.

7.2. Summary of the Thesis

The research presented within this thesis makes several original contributions to knowledge. In Chapter 1, a review of the ADVA and TAADVA prevalence and impact literature was conducted that critically analysed the prevalence of ADVA with a specific focus on the range and quality of the different methods of measurement used in the studies (e.g. Conflict Tactics Scale (CTS), Youth Risk Behavior Survey (YRBS), ad hoc, and other established measures). It was argued that differences in prevalence rates across studies were a function of the type and breadth of measures used. In addition, this was the first critical review of TAADVA prevalence measures that examined the range and breadth of items used to measure TAADVA in terms of the various behaviours and possible types of Electronic Communication Technologies (ECT) through which this can be experienced or instigated. It was argued that studies vary in terms of the range of TAADVA behaviours measured and that the role and use of specific ECTs in TAADVA was relatively unexplored. Furthermore, it was found that limited research had explored TAADVA among British adolescents. Traditional ADVA measures rarely considered TAADVA, meaning measures of psychological and sexual ADVA that are experienced via ECT are likely underestimated. Sexual TAADVA (i.e. pressured sexting) was characterised by clear gender differences in victimisation (females) and instigation (males), as was sexual ADVA, however adolescent's roles in TAADVA across the sexes was a relatively unexplored feature of the literature.

Although TAADVA was found to overlap with ADVA, it was not known whether ECT creates new victims and/or instigators of TAADVA. The impact of TAADVA may also be different to that of ADVA as a result of features of ECT that enable abuse to be communicated instantly, constantly and publicly. As a result of a limited amount of literature to have comprehensively explored TAADVA and the ECTs used, particularly in the UK, the findings of this review informed the development of a new set of TAADVA questions to explore TAADVA in this thesis. This was the first published review of the TAADVA literature to consolidate the state of knowledge on this topic and as a consequence, the questions raised formed the basis of the empirical investigations within the thesis. Moreover, this review highlighted what is currently known about the nature and prevalence of ADVA and TAADVA and more importantly what we do not know, thereby offering researchers an insight into what future research needs to focus on.

In Chapter 2, a review of theoretical explanations and empirical evidence that has identified risk factors/correlates for ADVA/TAADVA was presented. This recognised that there was a need for a comprehensive theory of ADVA/TAADVA, that there was a lack of research that has explored risk factors for TAADVA, and a lack of causal risk factor evidence. Typically, ADVA has been explained using social learning, feminist and attachment theories, supported by empirical evidence regarding peer, family, personal and attitudinal influences regarding violence. Such theories attempt to explain how ADVA is learned socially through observation and reinforcement, through the development of internal working models of relationships with significant others, and through socio-cultural norms and values related to gender roles and inequality, power and control. However, the potential role of attachment theory in ADVA/TAADVA is less empirically advanced than social learning and feminist perspectives, despite the identification of several attachment-related risk factor characteristics for ADVA (e.g. attachment anxiety, sensitivity to interpersonal rejection, relationship conflict and hostility). It is likely that ADVA/TAADVA is best explained using a combination of theories judging by the diverse range of risk factors in the empirical evidence reviewed. Some of these limitations were addressed in Chapters 5-6. This chapter also provided an informative overview of the current state of knowledge and remaining gaps in literature that seeks to explain ADVA/TAADVA that can be used by other researchers wishing to investigate risk factors/correlates of ADVA/TAADVA and develop comprehensive theories.

In Chapter 3, the rationale and outline of the methodology used in this thesis was provided. In addition, the justification, development, pilot work conducted, and refinement of a new comprehensive set of questions regarding TAADVA behaviours via various methods of ECT was outlined. Focus groups with adolescents who completed the pre-pilot questionnaire confirmed that ECT was important in the development and maintenance of romantic relationships during adolescence. Importantly, ECT was viewed as fuelling obsessive feelings and anxiety over a partner's responsiveness to communication, particularly for females, as opposed to males who expressed more dismissive attitudes towards relationships. In addition, it was found that ECT presented several opportunities for harassment, monitoring and controlling behaviours to occur providing insight into how ECT is used in TAADVA (e.g. reading messages, deleting friends, and demanding passwords). Furthermore, ECT was perceived to provide unique impacts in terms of making TAADVA seem both less harmful and more harmful than ADVA experienced in person due to the nature of ECT (i.e. constant inescapable abuse vs. the ability to turn ones phone or computer off). This has contributed to our understanding of the nature of TAADVA, and a new TAADVA questionnaire has been specifically developed for this study among British adolescents, which future research can further develop and validate these questions.

In Chapter 4, the nature and prevalence of TAADVA and ADVA was explored using the new set of TAADVA questions developed for this research. This was the first detailed study to investigate 12 TAADVA behaviours involving nine methods of ECT among British adolescents aged 12-18 years old. The findings highlighted that TAADVA is experienced through a range of ECT methods (sometimes all nine measured), and often encompassed multiple different types of behaviours, although being checked up on by a partner and having messages/social media accounts checked were uniquely experienced behaviours. The prevalence of TAADVA (i.e. any of the 12 behaviours) victimisation (73%) was higher than controlling (36%) and physical (25%) ADVA. This finding may be explained by the increased opportunity to communicate abusive behaviour via ECT instantly and repeatedly (Draucker and Martsolf 2010). This could also reflect adolescents' willingness to report abuse that occurs via ECT if such behaviour is viewed as less serious than face-to-face abuse. Alternatively, this could be due to the number of items used to capture a broad range of TAADVA behaviours. Although both male and female adolescents reported involvement in TAADVA and ADVA victimisation and/or instigation, females were significantly more likely to be a 'victim only' of sexual TAADVA and to report significantly more victimisation of sexting pressure and threats than males did, supporting the

gendered nature to victimisation experiences found in sexual ADVA (Foshee 1996 and Barter et al. 2009). Finally, the findings confirm that for some adolescents, TAADVA is an extension of ADVA (particularly for the instigator-victim role). Therefore, ECT appears to provide an opportunity for adolescents who experience abuse offline to also experience abuse via new avenue that may result in a more harmful impact if experienced in both contexts. However, a unique finding of this study is that roughly three-quarters of adolescents experienced TAADVA exclusively. Therefore, ECT also creates new victims and/or instigators of TAADVA, experiences that may not have occurred or been possible without the use of ECT and with potentially unique motives, meaning and impact.

In Chapter 5, through empirical research, the potential correlates of TAADVA were examined based on the role of involvement (i.e. victim only or instigator-victim), which has not been explored before. This study confirmed that controlling (and physical for females) ADVA is associated with TAADVA. In addition, female TAADVA instigator-victims reported having more friends with historical TAADVA victimisation experience. This extended our understanding of the role of peer dating violence influences in self-reported TAADVA as this has not been explored as a correlate before, despite being identified as important in self-reported ADVA. Additionally, this adds to our understanding of gender differences in the importance of friend TAADVA as a correlate of self-reported TAADVA. For males, avoidant attachment was associated with and independently predicted TAADVA instigation-victimisation, making a new contribution to knowledge of the role of attachment avoidance in TAADVA among British adolescents.

The role of attachment to parents, friends, and partners was therefore explored in more detail in Chapter 6 as an independent predictor and mediator of the relationship between friend dating violence (ADVA/TAADVA combined) and self-reported TAADVA and ADVA. These findings confirmed the influence of friend dating violence in TAADVA (for females) and ADVA (both sexes), and extend our understanding of the role of parental (and friend for males) avoidant attachment in TAADVA, and parental anxious attachment in ADVA for females. Furthermore, this was the first study to examine and find indirect relationships of friend dating violence in self-reported TAADVA and ADVA, fully mediated by maternal avoidant or paternal anxious attachment insecurity for females, offering a unique contribution to research in this area as this is the first piece of research to identify these relationships with adolescents.

7.3. Limitations

As with any research, the findings reported in this thesis have their limitations. The sample was drawn from a number secondary schools and youth clubs that were within reasonable travel distance from the investigator, and comprised young people (52% female) who had agreed to participate in the study. The findings may therefore not represent all adolescents in all schools and youth clubs in the areas where the data was collected. The sample also included more females than the national gender demographic in England (53% male; Office for National Statistics (ONS) 2011). The majority (88%) of the sample was of White British ethnicity, meaning the experiences of those from minority ethnic backgrounds was not accounted for, and this was more extreme than the representation of White ethnicity in England (81%; ONS 2011). Adolescents' sexuality was also not identified. Although there was a general consistency in the age range (12-18) and gender of participants, the youth club sample included significantly more females and older adolescents than the other types of sample. There may have been slight inconsistencies in the socio-economic status of the adolescent participants in each sample type, despite being conducted in similar geographical areas. In the school samples the majority of adolescents (and parents) consented to take part. In the youth club setting, participation rates were lower which is possibly due to the nature of the setting (i.e. youth clubs were attended during the evening in a more informal environment). It is not known what implications this may have had in terms of the sample setting and whether there were any differences in TAADVA/ADVA between those who did and did not take part. It is possible that those who did not take part had experiences (or more serious experiences) of TAADVA/ADVA.

Data were collected using self-report surveys with assurances of anonymity and confidentiality; however, prevalence research using self-report measures on topics such as dating violence may be susceptible to socially desirable responding (Simon et al. 2010). Interestingly, few significant correlations with social desirability were found. Other factors to consider are that the classroom, youth club and home settings in which the data were collected may have had an impact on how comfortable respondents were with completing the questionnaires (e.g. the presence of the researcher, teacher, and/or peers), despite being completed individually. It is important for appropriate adults such as the teacher and the researcher to be present in order to help regulate the classroom during the data collection sessions, particularly in large classes. Conducting the questionnaires individually on a private computer, tablet, or by telephone in respondents' spare time may prove to be a

suitable alternative to gather data on personal topics. Such methods have been found to produce higher participation rates, levels of reporting, convenience, economy, accuracy and reliability (Rosenbaum et al. 2006 and Tourangeau and Smith 1996).

A comprehensive TAADVA questionnaire was developed based on the review of TAADVA studies and adolescent's feedback in the pilot study, however, the use of spyware and tracking software, which has been identified in a recent study (Baker and Carreño 2016), was not included in the range of ECTs explored in the TAADVA questionnaire. This was due to practical reasons such as the application of this method of ECT to each of the 12 TAADVA behaviours measured however future research should incorporate this. Offline sexual ADVA was also not measured which limits the understanding of all types of ADVA. As stated in Chapter 3 (Section 3.4.1.6.4), a number of ethical and practical issues influenced the decision to omit measuring offline sexual ADVA experiences including the age of the sample, the sensitivity of the issue, potential disclosure of underage sexual behaviours and abuse (particularly with older partners), resistance by some gatekeepers for such questions to be included in the questionnaire, and due to reports of sexual violence tending to be subject to socially desirable responding and underreporting (Fernández-González, O'Leary, and Muñoz-Rivas, 2013). This should be addressed where possible in future research in order to examine the multiple types of ADVA and their predictors. Consistent with the sexual ADVA literature (Foshee 1996 and Barter et al. 2009), the findings in Chapter 4 confirmed that females were significantly more likely to experience partner sexting pressure and victim-only experiences of sexual TAADVA than were males.

As this research was cross-sectional, it is not known specifically whether adolescents were instigator-victims of TAADVA/ADVA within the same relationship or whether these experiences of victimisation and instigation occurred over time (i.e. past year) with different partners, which would be useful to examine in future research. In addition, the analysis of the associations between TAADVA, ADVA and the correlates examined cannot confirm causal relationships. It would be useful to examine predictors of TAADVA and ADVA including factors such as attachment throughout childhood and adolescence longitudinally in order to examine the developmental antecedents of predictors in order to determine cause and effect relationships using the strongest methodological procedures (Kramer et al. 1997). The measurement of the correlates of TAADVA also needs to be considered. Although 'the number of friends with experience of dating violence' has been used by others (Arriga and Foshee

2004 and Foshee et al. 2011), this factor has been measured in a variety of ways. Using this measure enabled the role of each additional friend with dating violence experience in predicting self-reported TAADVA/ADVA to be explored. However, this relies on adolescents' memory or awareness of friend dating violence experiences.

The limitations of the measurement of attachment also need to be acknowledged as attachment has been recognised to be a particularly difficult concept to accurately measure (i.e. the unconscious vs. conscious representation individuals' perception of their relationships) especially with self-report measures (Bolen 2000). It is also not known what implications the developmental stage of maturation during adolescence may have on adolescent attachment and its measurement (Crittenden 2000), or whether adolescent romantic relationships are attachment relationships at all (Furman and Collins 2009). For example, adolescent relationships appear to often be fairly short and frequent, particularly during early to middle adolescence, meaning further research is needed to explore whether they are attachment relationships. Nevertheless, a widely used questionnaire was used to measure attachment and this provided the opportunity to examine the relationship between friend dating violence and attachment to parents, friends, and partners in self-reported TAADVA/ADVA, which has never previously been done.

7.4. Implications

7.4.1. Implications for understanding the role of ECT in ADVA

Collectively, the findings from this thesis support the notion that TAADVA and ADVA are evident and not uncommon in young people's romantic relationships. However, the findings highlight some distinct differences between violence that is face-to-face or that done via ECT in terms of the nature, prevalence, and potential predictors and mediating relationships (i.e. attachment), despite there being some overlap between the two. An important implication of the findings is that ECT appears to create a new opportunity for ADVA to be experienced and/or instigated, exclusively via ECT or in addition to offline abuse. Consequently, this means research evidence regarding the prevalence of ADVA may be underestimated in surveys that do not specifically address violence communicated via ECT. The finding that TAADVA was more prevalent than controlling and physical ADVA, and that multiple TAADVA behaviours were experienced via a range of ECT methods, raises implications for recognising the extent and intrusiveness of TAADVA. It is possible that there will be differences in the

experience, motives, and impact of TAADVA compared to ADVA as a result of the unique features ECT brings to communicate abuse instantly, repeatedly, and publically via a diverse range of methods. Adolescents in the pilot study highlighted the heightened anxiety, obsession, and ability to monitor a partner's communication and social networks that ECT has brought in terms of facilitating TAADVA. This raises theoretical and practical implications for recognising how ECT has changed how 'the digital generation' (Buckingham 2013) communicate and abuse each other, including the creation of opportunities to engage in behaviours unique to ECT (i.e. sexting), which may have unique personal, social and legal consequences, particularly for females (Ringrose et al. 2012, 2013 and Wood et al. 2015), who were more likely to experience exclusive victimisation of sexual TAADVA. Such considerations may require modification or additions to current theoretical explanations and subsequent policy and practice to address the role of ECT in ADVA.

Drawing on Ward and Hudson's (1998, cited in Ward and Beech 2006: 46) notion of 'theory-knitting', a combination of traditional theories such as social learning, attachment and feminist/gender inequality perspectives can be applied to explain how TAADVA is learned, modelled, and reinforced at multiple levels of the ecological model (i.e. socio-cultural and socio-cognitive influences) as an appropriate way to behave and communicate in romantic relationships. This is evidenced in the empirical findings presented in Chapters 4-6 regarding the influence of friend dating violence and attachment as correlates of TAADVA (and ADVA) and to the gendered nature found in female experiences of sexual TAADVA victimisation. However, unique features of abuse that is communicated via a diverse range of ECTs may require adaptation of these theories with new perspectives that account for changes in the methods (i.e. modus operandi) of TAADVA, the increase in victim exposure and the lack of deterrence for violence instigated in cyberspace (Miró Llinares 2001: 5, cited in Agustina 2015: 39). Jaishankar's (2011) space transition theory appears to be relevant here and should be incorporated into future research and 'theory-knitting' of explanations of TAADVA. Space transition theory highlights how concepts such as online disinhibition, dissociative anonymity, the blurring of boundaries of what is acceptable behaviour in online space and the ability for repressed offline behaviour to be acted out online may influence crime (including violence) instigated in cyberspace. Similarly, routine activity perspectives (Cohen and Felson 1979) may also provide insight into how ECT has created increased opportunities for TAADVA and how factors such as a lack of a capable guardian (i.e. deterrence) and a constant access to victims for motivated

instigators can be addressed in future theorisation of the causes, motives, and impact of TAADVA and its prevention.

7.4.2. Implications for ADVA policy

The findings indicate that there is a clear need for recognition of TAADVA in social policy and that this should be considered as equally important as ADVA. In addition, definitions and ADVA policy need to be inclusive of adolescents under the age of 16 as has been achieved internationally (Council of Europe 2011) in order to intervene before adolescent romantic relationships start (Adler-Baeder et al. 2007). These implications are not reflected in current strategies as the recent amendment of the UK cross-Government definition of domestic violence only includes those aged 16 and above and does not include ECT-based violence (Home Office 2012, 2014). Although new laws concerning coercive and controlling behaviour have provided opportunity to capture ECT-based control and coercion (Home Office 2015), this needs to be reflected in ADVA policy and prevention strategies. It is important to recognise ADVA may be experienced in both the offline and online contexts, and when one is present, practitioners should look for signs for the other.

7.4.3. Implications for addressing ADVA/TAADVA through social learning

The findings regarding the prevalence of TAADVA and ADVA and the influence of friend dating violence in TAADVA/ADVA raise implications for prevention in terms of raising awareness of ADVA/TAADVA and addressing attitudes that condone violence at the socio-cultural level. As peers are thought to be influential in the development of both positive and negative relationship expectations (Connolly and Goldberg 1999, Furman et al. 2002 and Richards, Branch, and Ray 2014), encouraging supportive relationships and challenging those that are violent between peers would also prove beneficial. This is possibly best addressed in school settings and organisations that work with young people (i.e. youth centres) through principles of social learning and use of positive role models. However, the management of ADVA and TAADVA should be addressed from multiple perspectives drawing on the theoretical and empirical evidence.

The findings concur with previous research that identifies a need for multi-level on-going national and local educational strategies that include schools (teachers and school nurses), parents, communities, media campaigns, and external agencies in preventing and managing ADVA/TAADVA

(Lundren and Amin 2015, Ouytsel et al. 2016, Stanley et al. 2015 and Weisz and Black 2010). Online social media platforms that young people visit and interact in could also provide opportunity to educate adolescents about TAADVA and other forms of cyber abuse, how to report abuse, and how to protect themselves online. Schools are an ideal place to educate adolescents and their peers about ADVA/TAADVA and its impact from an early age, challenging social norms before the onset of dating relationships and the transition of unhealthy relationship attitudes or expectations into experiences (Lundren and Amin 2015 and Stanley et al. 2015). It is suggested that ADVA/TAADVA should be included with existing sex education programmes, including gender inequality, healthy relationships, help-seeking, and how to protect oneself and assess risky relationships throughout adolescence to reinforce that such behaviour should not be and will not be tolerated in relationships. In addition, TAADVA and ECT-based safety awareness specifically (i.e. risks, responsible ECT use, privacy, blocking and reporting) is necessary. The findings from this thesis can be used to inform interventions which aim to reduce TAADVA/ADVA by raising awareness of the types and range of behaviours and ECT methods through which TAADVA is experienced, the role of gender in involvement in sexual and non-sexual TAADVA experiences (i.e. as a victim and/or instigator), and the role of peers in addressing and challenging ADVA/TAADVA and its acceptance in adolescent relationships.

Educational policies should take into account the broad nature of ADVA/TAADVA behaviours and typologies of involvement, recognising that although males and females are instigators and victims of TAADVA and ADVA, females are more likely to experience sexual TAADVA and ADVA. Furthermore, the motives and impact of ADVA (and likely TAADVA) are different for males and females (Barter et al. 2009, Molidor and Tolman 1998 and O’Keefe 1997). Such ‘gender-specific’ experiences may be best discussed and addressed in single-sex groups (Stanley et al. 2015). A combination of same-gender and coeducational groups is likely to be most effective (Kerig et al. 2010), in order to address all forms of ADVA/TAADVA and to ensure the importance of male victimisation is not diminished through exclusive gender-oriented policies, which may discourage males from reporting experiences of ADVA/TAADVA, while recognising gendered forms of abuse and its impact.

7.4.4. Implications for addressing attachment security to significant others

Attachment avoidance independently predicted male TAADVA involvement beyond all other factors explored in Chapter 5. Further analysis in Chapter 6 revealed that male and female adolescents

involved in TAADVA were more avoidant in terms of their views of attachments to parents and/or friends, and females involved in ADVA had more anxious representations of relationships with parents. The difference found in terms of the type of attachment insecurity that influences self-reported TAADVA (i.e. avoidant) and ADVA (i.e. anxious) may reflect differences in the function of attachment and desire for more distant or personal contact and methods to communicate abuse. As attachment appears to be particularly important in self-reported TAADVA and ADVA, this raises several implications for theory and practice in terms of preventing parental and friend avoidant and anxious attachments. Furthermore, maternal avoidance and paternal anxiety fully mediated the relationship between friend dating violence and females' self-reported TAADVA and ADVA, indicating that attachment should be addressed as a priority above peer influences.

Adolescents with avoidant/anxious attachments to parents may lack the skills or experience to develop healthy relationships with partners, learn to legitimise the use of violence in relationships, or use violence when threatened by intimacy or a lack of intimacy (Bowlby 1984, Hazan and Shaver 1994 and Moretti, Dasilva, and Holland 2004). There is a need to understand the causes of attachment insecurity and how different types of insecurity lead to ADVA and TAADVA. Parent-child attachment quality has been identified to influence child and adolescent social and emotional adjustment and self-efficacy, quantity and quality of daily social interaction, peer relations, loneliness, depression, self-esteem, conflict and emotion management, aggression, and externalising behaviour (Allen et al. 2007, Benoit 2004, Coleman 2003, Kerns and Stevens 1996, Liable, Carlo and Raffaelli 2000, Linder and Collins 2005, McCormick and Kennedy 1992, Pinto et al. 2015 and Schneider, Atkinson and Tardiff 2001). Some of these factors were also identified as risks for ADVA in Chapter 2 and may contribute to explaining how parental attachment insecurity leads to ADVA/TAADVA. Research and interventions should consider early developmental experiences in the family context that contribute to attachment and subsequent adjustment difficulties that are relevant to the development of ADVA/TAADVA.

The findings therefore highlight implications for addressing and emphasising the benefits of establishing secure attachments and positive relationship functioning (i.e. expressing emotions, managing anger and conflict) between parents and children, and adolescents and peers and partners, in order to foster healthy relationship experiences and expectations. Attachment programmes should be offered universally to parents as has been done successfully with other programmes such as the multi-

level Triple-P parenting strategy that aims to reduce behavioural, emotional and development problems in children by enhancing the skills and knowledge of parents (Sanders 1999). Although the measure of attachment in this thesis reflects adolescents' current perceptions of their relationships with others, attachment is thought to be relatively stable from childhood to adolescence (Hamilton 2000 and Ammaniti et al. 2000), therefore it is likely to be beneficial to start prevention strategies early, and for such programmes to be continuous in order to ensure the continuation of secure attachments and its positive effects.

Research has shown that parent-child attachment programmes are successful in leading to infants' developing secure attachments, addressing externalising behaviour problems, and developing maternal responsiveness and parental skills to establish secure attachments (Appleyard and Berlin 2007, Lieberman, Weston, and Pawl 1991, van den Boom 1994 and van Zeijl et al. 2006). More research and evaluation is needed to contribute to the development of early attachment programmes for parents that should continue throughout childhood and adolescence in order to enhance secure attachments, positive adjustment and healthy relationship functioning. Such interventions can operate through social and health care home visiting, community and mental health centres (Appleyard and Berlin 2007). Furthermore, extending programmes in schools throughout childhood and adolescence that deal with attachment-related and personal competencies such as anger, jealousy, anxiety, obsession, control, self-esteem, depression, managing conflict, and expressing emotions would likely contribute to adolescent adjustment, wellbeing and relationship skills (Laible, Carlo, and Raffaelli 2000).

7.5. Future Directions

The results presented in this thesis and the limitations highlight several avenues for further research to extend our theoretical understanding of ADVA, TAADVA, and its measurement. For example, future research should further develop and validate the questions developed herein that were used to explore TAADVA. In addition, there is a need for longitudinal research to examine the onset and trajectories of ADVA and TAADVA in order to determine whether ADVA leads to TAADVA or vice versa. Future longitudinal research should examine the typologies of adolescent involvement in TAADVA and/or ADVA, the extent to which adolescents are victims, instigators and instigator-victims within a relationship and in different relationships over time, the motives for violence, level of control,

gender inequality, and impact of violence. The motives, risk factors and impact of ADVA/TAADVA for those involved as instigator-victims may be more complex than victim or instigator only roles. It is also particularly important to explore the impact of sexual and non-sexual TAADVA, and whether this differs by ECT method. Qualitative research regarding the nature, motives and impact of TAADVA, particularly sexual TAADVA is also needed and would perhaps be best conducted using individual interviews or with same-gender focus groups in order to develop these theoretical insights needed.

Future research should continue to work towards developing a comprehensive theory of ADVA/TAADVA, building on Level 2 and 3 theories (Ward and Hudson 1998, cited in Ward and Beech 2006: 46). The findings reported in Chapters 2, 5 and 6 suggest that ADVA/TAADVA is determined by a range of factors across the ecological framework (Bronfenbrenner 1979, 1994). Therefore, larger longitudinal studies that account for multiple predictors (i.e. those in the family and peer context, attachment, attitudes, and Psychological Adjustment and Personal Competency (PAPC) factors) and interacting, mediating, and moderating relationships are needed. The findings regarding the role of parental and friend avoidant and anxious attachment insecurity point to promising avenues of further investigation as both mediating factors and independent predictors of TAADVA and ADVA. For example, attachment should be examined as a mediator of PAPC-related factors but also PAPC-factors (i.e. anger) should be examined as a mediator of attachment (e.g. Follingstad et al. 2002), in addition to other familial, individual and attitudinal factors (i.e. gender inequality). Longitudinal research that assesses attachments to significant others in infancy, childhood and throughout adolescence is needed in order to verify the potential causal direction of these associations and the relationship to ADVA/TAADVA. Furthermore, exploration of how and why attachment insecurity leads to ADVA/TAADVA would be useful.

Potential predictors should be examined in relation to role of involvement (e.g. victim and/or instigator) with a larger sample in terms of sexual and non-sexual ADVA and TAADVA, recognising the overlap between these types of violence. This would address whether predictors for ADVA and TAADVA are the same for experiences as victims only, instigators only, and instigator-victims of the various forms of violence in order to develop theoretical understandings of the typologies of ADVA/TAADVA and to inform prevention and intervention strategies. Finally, a universal measure to assess a range of ADVA and TAADVA risk factors across the ecological model would make future research more comprehensive and comparable.

7.6. Conclusion

In conclusion, ECT appears to provide a new tool in which adolescence can instigate and/or experience TAADVA that may be used in addition to ADVA, however, it also creates new victims and/or instigators through a diverse range of ECT methods (and often multiple different types of abusive behaviour) that may result in unique experiences and impact. Females are more likely to experience sexual TAADVA victimisation while non-sexual TAADVA was characterised by involvement as an instigator-victim for both sexes. The findings confirm the influence of friend dating violence in TAADVA (females only) and ADVA, in addition to the role of parental (and friend for males) avoidant attachment in TAADVA and parental anxious attachment in ADVA (for females). Furthermore, maternal avoidance or paternal anxiety mediated the relationship between friend dating violence and TAADVA or ADVA for females. Avoidant adolescents may choose to instigate abuse through technology, while anxious adolescents prefer to instigate abuse directly, adding to evidence that TAADVA and ADVA should be considered as unique behaviours with unique correlates, while recognising the overlap between the two forms of abuse in theoretical explanations and future prevention efforts. These findings highlight implications for intervention in terms of a need to consider the diverse range and methods through which ADVA/TAADVA can be instigated and experienced from early adolescence in definitions, policy, and theoretical explanations of ADVA/TAADVA. Furthermore, strategies to educate adolescents and their peers about ADVA/TAADVA, help-seeking, and challenge attitudes that tolerate ADVA/TAADVA are needed throughout adolescence to reinforce the message that such behaviour is not acceptable. This should include consideration for how ECT has changed the way adolescents communicate with each other, particularly in romantic relationships. Importantly, there is a need for programmes for parents and professionals working with families and young people that raise awareness of how to foster secure attachments and to address problematic attachment-related characteristics in order to promote resilience and healthy relationships.

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Appendices

Appendix 1: Published version of Chapter 2

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Appendix 2: ADVA/TAADVA risk/protective factors/correlates studies

Table A2.1

Summary and Methods of ADVA Risk Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Risk	Perpetration Risk	Involvement Risk
Arriaga & Foshee (2004)	US N = 526 12-17 years	Longitudinal	Self-report questionnaire 2 waves, 6 months	Physical violence	Friends with experience of dating violence (female only)	Friends with experience of dating violence (female only)	-
Brooks-Russell, Foshee, & Ennett (2013)	US N = 2,566 8-12 th grade	Longitudinal	Self-report questionnaire 4 waves, 2 years	Physical violence	Alcohol use (females only) Anxiety (females only) Being victimised by peers	-	-
Cleveland, Herrera, & Stuewig (2003)	US N = 603 ^f 16-17 ^g years	Longitudinal	Interview 2 waves, 1 year	Physical violence	Grade Point Average (female only) Relationship with mother (female only) School attachment (low levels of) (female only) Total drinking behaviors (female only) Frequency of drinking (female only) Depression (female only)	Grade Point Average (male only) High verbal IQ (male only) Sex desirability (male only) Relative timing of sex and love (male only) Number of sexual partners (male only) Fighting (male only)	-
Connolly et al. (2010)	Canada N = 627 14-19 years	Longitudinal	Self-report questionnaire 2 waves, 1 year	Physical violence	-	-	Attitudes accepting of aggression Relationship conflict (hostility, conflict) Aggressive media use (mediated by violence tolerant attitudes)
Ellis, Chung-Hall & Dumas (2013)	US N = 598 14-17 years	Longitudinal	Self-report questionnaire 2 waves, 6 months	Verbal, physical, sexual, threatening and relational aggression	Peer group relational aggression	Peer group relational aggression Individual relational aggression	-

Espelage et al. (2014)	US N = 1,162 10-20 years	Longitudinal	Self-report questionnaire 7 waves, 5 years	Physical, verbal emotional abuse, and sexual coercion	-	Bully perpetration Sibling aggression (male only) Delinquency (male only)	-
Foshee et al. (2014)	US N = 1,154 6-8 th grade	Longitudinal	Self-report questionnaire 2 waves, 2 years	Physical violence	-	Physical bullying	-
Foshee et al. (2013)	US N = 3,412 7-12 th grade	Longitudinal	Self-report questionnaire 5 waves, 2.5 years	Physical violence	-	Friends who use dating violence High in social status (female only)	-
Foshee, McNaughton Reyes, & Ennett (2010)	US N = 1,666 8-10 th grade	Longitudinal	Self-report questionnaire 2 waves, 6 months	Physical violence	-	Depression (female only) Marijuana use (female only) Aggression against peers (female only) Anxiety (white youth) Anger (black youth) Number of friends using dating violence	-
Foshee et al. (2004)	US N = 1,291 8-9 th grade	Longitudinal	Self-report questionnaire 4-5 waves, 4-5 years	Serious physical (P) and sexual (S) violence	Been hit by an adult with the intention of harm (P) Low self-esteem (P - male only) Been in a physical fight with a peer (P - male only) Having a friend who has been the victim of dating violence (S - female only) Being depressed (S - female only)	-	-
Foshee <i>et al.</i> (2001)	US N = 1,186 8-9 th grade	Longitudinal	Self-report questionnaire 2 waves, 1.5 years	Physical and sexual violence	-	Friends who are victims of dating violence (female only) Alcohol use (female only) Attitudes accepting of dating violence (male only) Being of a race other than White (female only)	-
Friedlander et	Canada	Longitudinal	Self-report	Physical violence	Aggressive media usage	Aggressive media usage	-

al. (2013)	N = 484 14-17 years		questionnaire 3 waves, 3 years		(mediated by violence-tolerant attitudes)	(mediated by violence-tolerant attitudes)	
Hipwell et al. (2014)	US N = 475 ^a 10-17 years	Longitudinal	Interview 8 waves, 8 years	Physical violence	-	-	Initial and increasing harsh punishment (female only) Escalation in peer victimisation (female only)
Lavoie et al. (2002)	US N = 717 ^b 10-18 years	Longitudinal	Self-report questionnaire 6 waves, 8 years	Physical and psychological violence	-	-	Harsh parenting practices (male only) Low parental monitoring (male only) Antisocial behaviour (i.e. delinquency and substance abuse) (male only)
Lichter & McCloskey (2004)	US N = 208 13-21 years	Longitudinal prospective	Interview 2 waves, 7-9 years	Physical and sexual violence	Traditional beliefs about the family Gendered dating scripts	Traditional beliefs about the family Gendered dating scripts Acceptance of male-to-female dating violence	-
Makin-Byrd et al. (2013)	US N = 401 7-12 th grade	Prospective Longitudinal	Interview 12 waves, 12 years	Physical violence	Early adolescent aggressive-oppositional problems at home Adolescent aggressive-oppositional problems at school	Early adolescent aggressive-oppositional problems at home	Early adolescent aggressive-oppositional problems at home
McCloskey & Lichter (2003)	US N = 296 10-16 years	Longitudinal	Interviews 3 waves, 8 years	Physical violence	-	Depression; following exposure to marital violence and adolescent aggression toward peers (female only)	-
Moretti et al. (2014)	US N = 139 ^c 13-24 years	Prospective Longitudinal	Self-report questionnaire 2 waves, 5 years	Physical and psychological violence	-	Exposure to maternal intimate partner violence (female only) High sensitivity to interpersonal rejection (female only)	-
O'leary and Smith Slep (2003)	US N = 206 16.5 mean age	Longitudinal	Self-report questionnaire 2 waves, 3 months	Physical and verbal dating violence	-	Own use of physical aggression predicted partner's use of physical aggression	-

			approx.			Partner's use of physical aggression predicted own use of physical aggression	
Raiford et al. (2007)	US N = 522 ^d 14-18 years	Longitudinal	Self-report questionnaire and interview 2 waves, 1 years	Physical and verbal violence	Less understanding of healthy relationships (female only) Drug use (female only) Viewed X-rated movies (female only)	-	-
Reyes et al. (2014)	US N = 2455 8-12 th grade	Longitudinal	Self-report questionnaire 4 waves, 2 years	Physical violence	-	Marijuana use (female only) Hard drug use (male only) Heavy alcohol use Family conflict Peer aggression Dating abuse victimisation	-
Richards, Branch, & Ray (2014)	US N = 346 ^a 7-12 th grade	Longitudinal	In-home interview 2 waves, 1 year	Physical (P) and emotional (E) violence	Being of a race other than White (P) (female only)	Experience more family violence from parents (P) (female only) Being of a race other than White (P) (female only)	-
Reyes and Foshee (2013)	US N = 459 ^b 8/9 th -11/12 th grade	Longitudinal	6 waves, 4 years	Sexual dating violence	-	Physical dating aggression (and rape myth acceptance) Peer aggression and rape myth acceptance	-
Schnurr & Lohman (2013)	US N = 765 ^e 10-20 years	Longitudinal	Interview 3 waves, 6 years	Physical violence	-	Drug and alcohol use Low parental monitoring Academic difficulties Involvement with antisocial peers Mother's experience of domestic violence (male and Hispanic female only) Externalizing behaviors (African-American females only)	-

Schnurr & Lohman (2008)	US N = 765 ^e 10-20 years	Longitudinal	Interview 3 waves, 6 years	Physical violence	-	Depressive symptoms (male only) Early involvement with antisocial peers Increase in involvement with antisocial peers Early drug and alcohol use (female only; Hispanic male only) Low levels of hostility with father during early adolescence (female only) Externalizing behaviour problems (marginally) (female only) Living in stably two-parent home (African-American females) Mother-child hostility (Hispanic females only) Harsh physical punishment from mothers (Hispanic females only)	-
Stocker & Richmond (2007)	US N = 110 14-19 years	Longitudinal	Self-report questionnaire 2 waves, 3 years	Hostility (Psychological violence)	-	Hostility in parents marriages Hostility in friendships	-
Temple et al. (2013)	US N = 734 9-11 th grade	Longitudinal	Self-report questionnaire 2 waves, 1 year	Physical violence	-	Alcohol use Hard drug use Exposure to (mother-to-father) interparental violence Past dating violence perpetration	-
Tschann et al. (2009)	US N = 150	Longitudinal	Interviews 3 waves, 1 year	Physical and verbal violence	Interparental violence Dating violence victimisation at 6	Interparental violence Dating violence victimisation at	-

	16-21 years				months		6 months	
Ulloa, Martinez-Arango and Hokoda (2014)	US N = 140 13-18 years	Longitudinal	Self-report questionnaire 2 waves, 10 months	Physical dating violence	-	-	Attachment anxiety Depressive symptoms	-
Wolfe et al. (2004)	Canada N = 1317 14-19 years	Longitudinal	Self-report questionnaire 2 waves, 1 year	Physical, emotional, and threatening violence	-	-	Trauma-related symptoms (predicted emotional abuse for males) Trauma-related anger (predicted dating violence for females)	-

Note: ^a Female only sample; ^b Male only sample; ^c Females drawn from a juvenile detention centre; ^d African American female adolescents residing in high-risk social environments; ^e Primarily African-American and Hispanic low-income sample; ^f 603 opposite sex couples; ^g Age 16-17 years is based on mean age at wave 2 of 17 years

Table A2.2

Summary and Methods of ADVA Protective Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Protector	Perpetration Protector
Foshee, Reyes, & Ennett (2010)	US N = 1666 8-10 th grade	Longitudinal	Self-report questionnaire 2 waves, 6 months	Physical violence	-	Marijuana use (males only)
Foshee et al. (2013)	US N = 3412 7-12 th grade	Longitudinal	Self-report questionnaire 5 waves, 2.5 years	Physical violence	-	High quality friendships Friends with pro-social beliefs (female only)
McCloskey and Lichter (2003)	US N = 296 10-16 years	Longitudinal	Interview 3 waves, 8 years	Physical violence	-	Higher empathy
Richards, Branch and Ray (2014)	US N = 346 ^a 7-12 th grade	Longitudinal	In-home interview 2 waves, 1 year	Physical (P) and emotional (E) violence	Increased levels of social support from friends (E) (female only) Higher average grades (P) (female only)	Increased levels of social support from friends (P and E) (female only) Higher average grades (P) (female only)

Note: ^a Female only sample

Table A2.3

Summary and Methods for TAADVA Risk Correlate Studies

Authors	Sample	Design	Instrument	Victimisation Risk	Perpetration Risk	Involvement Risk
Cutbush et al. (2010)	US N = 4282 Mean age 14.3 years	Cross-sectional	Self-report questionnaire (Picard 2007) Lifespan	Female sex Psychological abuse perpetration or victimisation Physical dating violence victimisation Sexual dating violence victimisation Stalking victimisation Peer aggression	Psychological dating abuse perpetration or victimisation Physical dating violence perpetration or victimisation Sexual dating violence perpetration or victimisation Stalking perpetration or victimisation Peer aggression	-
Cutbush et al. (2012)	US N = 1430 Mean age 12.3 years	Cross-sectional	Self-report questionnaire (Picard 2007) Lifespan	Psychological dating abuse perpetration or victimisation Physical dating violence perpetration Sexual harassment victimisation	Psychological dating abuse perpetration Physical dating violence perpetration Sexual harassment perpetration	-
Dick et al. (2014)	US N = 1008 ^a 14-19 years	Cross-sectional	Self-report questionnaire Previous 3 months	-	-	Physical dating violence victimisation Sexual dating violence victimisation Nonpartner sexual assault victimisation Contraceptive nonuse Reproductive coercion Physical dating violence Community violence exposure
Epstein-Ngo et al. (2014)	US N = 210 ^b 14-20 years	Cross-sectional	Self-report questionnaire Previous 2 months	-	-	Physical dating violence Community violence exposure
Hinduja and Patchin (2011)	US N = 4400 11-18 years	Cross-sectional	Self-report questionnaire Lifespan	Being a victim of offline dating violence Being a victim of cyberbullying Sharing passwords with a significant other	Being a perpetrator of offline dating violence	-
Korchmaros et al. (2013)	US N = 615 14-19 years	Cross-sectional	Self-report questionnaire Previous 12 months	-	Perpetrating psychological dating aggression	-

Zweig et al. (2013b)	US N = 3745 12-18 years	Cross-sectional	Self-report questionnaire Previous 12 months	Sexual coercion Physical dating violence Psychological dating abuse Being a victim of cyberbullying	Sexual coercion Physical dating violence Psychological dating abuse Being an instigator of cyberbullying	-
Zweig et al. (2014a)	US N = 3745 12-18 years	Cross-sectional	Self-report questionnaire Previous 12 months	Being female Committing a greater variety of deviant behaviours Having had sexual activity in ones lifetime Having higher levels of depressive symptoms Having higher levels of anger/hostility Physical dating violence victimisation Psychological dating violence victimisation Sexual coercion victimisation	-	-

Note: ^a Youths seeking care at school-based health centres; ^b High risk youth (primarily African-American sample)

Appendix 3: Published pilot study paper

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Appendix 4: Participant demographic information

Table A3.1

Ethnicity of participants in the quantitative studies

<i>n</i>	White	Asian	Black	Chinese	Mixed	Other
469	88%	3%	1%	1%	5%	2%
	(412)	(16)	(6)	(3)	(23)	(9)

Table A3.2

Parental marital status of participants in the quantitative studies

<i>n</i>	Married	Separated	Divorced	Living partner	Single	Widowed
469	47%	12%	8%	11%	21.5%	1%
	(220)	(55)	(39)	(51)	(101)	(3)

Appendix 5: Descriptive frequencies of the consequences of technology-assisted adolescent dating violence questionnaire

Descriptive Frequencies from the Consequences of Technology-Assisted Adolescent Dating Violence and Abuse Measure

Introduction

Although the impact of Adolescent Dating Violence and Abuse (ADVA) has been documented in research literature (e.g. Silverman et al. 2001, Callahan, Tolma, and Saunders 2003, Ackard, Eisenberg, and Neumark-Sztainer 2007 and Ismail, Berman, and Ward-Griffin 2007; also see Chapter 2), an exploration of the impact of TAADVA is less empirically advanced. A recent study Barter et al. (2015a) with 3,277 adolescents aged 14-17 years old in England and four other European countries found that the majority of female adolescents reported a negative impact of their experiences of ADVA (including online emotional, in person emotional, physical and sexual abuse) while the majority of young men reported an affirmative impact or no effect, although impacts varied across the different types of violence. Negative responses were described as being 'upset, scared, embarrassed, unhappy, humiliated, bad about yourself, angry, annoyed, and shocked'. Affirmative or no effect responses were defined as feeling 'loved, good about yourself, wanted, protected, thought it was funny and no effect'. Such findings are fairly consistent with research to have explored the impact of ADVA such as the effects on young people's psychological and emotional wellbeing which may include emotional problems such as feelings of anger, fear, hurt, confusion, sadness, guilt, shame and embarrassment (e.g. Barter et al. 2009, Burman and Cartmel 2005, Ismail, Berman, and Ward-Griffin 2007, Jackson, Cram, and Seymour 2000 and O'Keefe and Treister 1998). More research is needed to explore the impact of TAADVA as the impact literature has mainly focused on the impact of in-person ADVA. Furthermore, the way adolescents respond to experiences of TAADVA is yet to be investigated. Some research has explored how 211 young adults (*M* age 21.56 years old) have responded to cyber-teasing in their romantic relationships (Madlock and Westerman 2011), identifying a number of behaviours such as taking action in person and via technology. With regards to ADVA, Hird (2000) found that girls were more likely to respond to dating violence in non-aggressive, psychologically aggressive, and physically aggressive ways than boys. The outcome of TAADVA has

also yet to be explored, in terms of both positive and negative consequences (for example, on the relationship and resulting further arguments or violence and abuse). The summary of the data presented in this Appendix aims to attempt to fill this gap by expanding on current knowledge of TAADVA through the exploration of the consequences of adolescents' involvement in TAADVA as a victim and instigator.

Method

The findings in this Appendix used the same sample and procedure to that in Chapter 4. Respondents completed questions regarding the impact, response, and outcome of their experiences of TAADVA victimisation and instigation (see Chapter 3). Response options ranged from strongly disagree to strongly agree, including a 'not sure' response for the 'impact' items. Response options ranged from never, once, sometimes, to always for the 'response' and 'outcome' items.

Results

The descriptive frequencies of the consequences of TAADVA victimisation is based on 106-128 of the 202 respondents (impact: 124-128; response: 123-125; outcome: 106-108) who indicated that they had received some form TAADVA by some form of ECT in the last 12 months (i.e. in Chapter 4). For instigation, this is based on 80-89 of the 145 respondents (impact: 87-89; response: 83-86; outcome: 80-81) who indicated that they instigated some form of TAADVA by some form of ECT in the last 12 months.

Data screening

There were no significant correlations with social desirability for males or females. It must be noted that there were a significant number of missing responses for these three sections of the questionnaire. This may be due to the clarity of the instructions to continue if reporting receiving or using TAADVA in the previous sections, despite attempts to make this even clearer following the pilot study (Chapter 3), the reason for this however, is unclear.

Impact of TAADVA victimisation and instigation

Table A13.1
Impact of TAADVA victimisation

	Total % (n)					Male % (n)					Female % (n)				
	SD	D	NS	A	SA	SD	D	NS	A	SA	SD	D	NS	A	SA
Victimisation															
No impact on me at all ^a	43.8 (56)	16.4 (21)	12.5 (16)	10.9 (14)	16.4 (21)	43.8 (21)	10.4 (5)	4.2 (2)	16.7 (8)	25 (12)	43.8 (35)	20 (16)	17.5 (14)	7.5 (6)	11.3 (9)
Sad or hurt emotionally ^b	52.4 (66)	7.1 (9)	10.3 (13)	20.6 (26)	9.5 (12)	70.2 (33)	6.4 (3)	4.3 (2)	10.6 (5)	8.5 (4)	41.8 (33)	7.6 (6)	13.9 (11)	26.6 (21)	10.1 (8)
Distressed ^d	61.3 (76)	7.3 (9)	10.5 (13)	14.5 (18)	6.5 (8)	72.3 (34)	6.4 (3)	4.3 (2)	12.8 (6)	4.3 (2)	54.5 (42)	7.8 (6)	14.3 (11)	15.6 (12)	7.8 (6)
Angry ^c	54.4 (68)	8 (10)	5.6 (7)	20 (25)	12 (15)	63.8 (30)	10.6 (5)	2.1 (1)	14.9 (7)	8.5 (4)	48.7 (38)	6.4 (5)	7.7 (6)	23.1 (18)	14.1 (11)
Embarrassed ^d	60.5 (75)	10.5 (13)	10.5 (13)	8.9 (11)	9.7 (12)	63.8(3 (0)	14.9 (7)	8.5 (4)	6.4 (3)	6.4 (4)	58.4 (45)	7.8 (6)	11.7 (9)	10.4 (8)	11.7 (9)
Anxious ^c	58.4 (73)	8.8 (11)	7.2 (9)	14.4 (18)	11.2 (14)	66 (31)	8.5 (4)	4.3 (2)	8.5 (4)	12.8 (6)	53.8 (42)	9 (7)	9 (7)	17.9 (14)	10.3 (8)
Guilty ^d	58.9 (73)	11.3 (14)	11.3 (14)	11.3 (14)	7.3 (9)	66 (31)	10.6 (5)	6.4 (3)	10.6 (5)	6.4 (3)	54.5 (42)	11.7 (9)	14.3 (11)	11.7 (9)	7.8 (6)
Scared or afraid ^c	62.4 (78)	12.8 (16)	6.4 (8)	11.2 (14)	7.2 (9)	72.3 (34)	10.6 (5)	4.3 (2)	8.5 (4)	4.3 (2)	56.4 (44)	14.1 (11)	7.7 (6)	12.8 (10)	9 (7)
Cried ^c	56 (70)	6.4 (8)	4.8 (6)	12.8 (16)	20 (25)	76.6 (36)	6.4 (3)	2.1 (1)	8.5 (4)	6.4 (3)	43.6 (34)	6.4 (5)	6.4 (5)	15.4 (12)	28.2 (22)
Missed school because of it ^d	72.6 (90)	8.1 (10)	4 (5)	9.7 (12)	5.6 (7)	87.2 (41)	2.1 (1)	0 (0)	4.3 (2)	6.4 (3)	63.6 (49)	11.7 (9)	6.5 (5)	13 (10)	5.2 (4)
Good impact on relationship ^d	68.5 (85)	8.9 (11)	15.3 (19)	6.5 (8)	.8 (1)	72.3 (34)	8.5 (4)	8.5 (4)	8.5 (4)	2.1 (1)	66.2 (51)	9.1 (7)	19.5 (15)	5.2 (4)	0 (0)
Bad impact on relationship ^d	55.6 (69)	6.5 (8)	13.7 (17)	11.3 (14)	12.9 (16)	68.1 (32)	2.1 (1)	6.4 (3)	12.8 (6)	10.6 (5)	48.1 (37)	9.1 (7)	18.2 (14)	10.4 (8)	14.3 (11)

Note: ^a 128 respondents (out of 202 who experienced some form of TAADVA); ^b 126 respondents (out of 202 who experienced some form of TAADVA); ^c 125 respondents (out of 202 who experienced some form of TAADVA); ^d 124 respondents (out of 202 who experienced some form of TAADVA)

Table A13.2

Impact of TAADVA instigation

	Total % (n)					Male % (n)					Female % (n)				
	SD	D	NS	A	SA	SD	D	NS	A	SA	SD	D	NS	A	SA
Instigation															
No impact on me at all ^b	59.1 (52)	10.2 (9)	12.5 (11)	6.8 (6)	11.4 (10)	66.7 (22)	6.1 (2)	6.1 (2)	6.1 (2)	15.2 (5)	54.5 (30)	12.7 (7)	16.4 (9)	7.3 (4)	9.1 (5)
Sad or hurt emotionally ^b	70.5 (62)	5.7 (5)	11.4 (10)	11.4 (10)	1.1 (1)	87.9 (29)	3 (1)	6.1 (2)	3 (1)	0 (0)	60 (33)	7.3 (4)	14.5 (8)	16.4 (9)	1.8 (1)
Distressed ^c	73.6 (64)	6.9 (6)	13.8 (12)	4.6 (4)	1.1 (1)	84.8 (28)	6.1 (2)	9.1 (3)	0 (0)	0 (0)	66.7 (36)	7.4 (4)	16.7 (9)	7.4 (4)	1.9 (1)
Angry ^b	76.1 (67)	5.7 (5)	9.1 (8)	3.4 (3)	5.7 (5)	87.9 (29)	3 (1)	3 (1)	6.1 (2)	0 (0)	69.1 (38)	7.3 (4)	12.7 (7)	1.8 (1)	9.1 (5)
Embarrassed ^b	70.5 (62)	9.1 (8)	13.6 (12)	3.4 (3)	3.4 (3)	78.8 (26)	12.1 (4)	6.1 (2)	3 (1)	0 (0)	65.5 (36)	7.3 (4)	18.2 (10)	3.6 (2)	5.5 (3)
Anxious ^b	70.5 (62)	10.2 (9)	10.2 (9)	6.8 (6)	2.3 (2)	78.8 (26)	15.2 (5)	3 (1)	3 (1)	0 (0)	65.5 (36)	7.3 (4)	14.5 (8)	9.1 (5)	3.6 (2)
Guilty ^b	67 (59)	10.2 (9)	12.5 (11)	4.5 (4)	5.7 (5)	82.4 (28)	5.9 (2)	5.9 (2)	2.9 (1)	2.9 (1)	57.4 (31)	13 (7)	16.7 (9)	5.6 (3)	7.4 (4)
Scared or afraid ^c	70.1 (61)	9.2 (8)	12.6 (11)	5.7 (5)	2.3 (2)	75.8 (25)	12.1 (4)	6.1 (2)	6.1 (2)	0 (0)	66.7 (36)	7.4 (4)	16.7 (9)	5.6 (3)	3.7 (2)
Cried ^a	69.7 (62)	6.7 (6)	12.4 (11)	7.9 (7)	3.4 (3)	79.4 (27)	8.8 (3)	2.9 (1)	5.9 (2)	2.9 (1)	63.6 (35)	5.5 (3)	18.2 (10)	9.1 (5)	3.6 (2)
Missed school because of it ^c	78.2 (68)	3.4 (3)	12.6 (11)	5.7 (5)	0 (0)	87.9 (29)	3 (1)	3 (1)	6.1 (2)	0 (0)	72.2 (39)	3.7 (2)	18.5 (10)	5.6 (3)	0 (0)
Good impact on relationship ^b	77.3 (68)	5.7 (5)	17 (15)	0 (0)	0 (0)	84.8 (28)	3 (1)	12.1 (4)	0 (0)	0 (0)	72.7 (40)	7.3 (4)	20 (11)	0 (0)	0 (0)
Bad impact on relationship ^a	64 (57)	4.5 (4)	18 (16)	6.7 (6)	6.7 (6)	76.5 (26)	2.9 (1)	8.8 (3)	5.9 (2)	5.9 (2)	56.4 (31)	5.5 (3)	23.6 (13)	7.3 (4)	7.3 (4)

Note: ^a 89 respondents (out of 145 who used some form of TAADVA); ^b 88 respondents (out of 145 who used some form of TAADVA); ^c 87 respondents (out of 145 who used some form of TAADVA)

Response to TAADVA victimisation and instigation

Table A13.3

Response to TAADVA victimisation

	Total % (n)				Male % (n)				Female % (n)			
	N	O	S	A	N	O	S	A	N	O	S	A
I used a mobile phone (e.g. call or text) to retaliate aggressively ^b	68.5 (85)	16.9 (21)	8.9 (11)	5.6 (7)	78.7 (37)	8.5 (4)	6.4 (3)	6.4 (3)	62.3 (48)	22.1 (17)	10.4 (8)	5.2 (4)
I used an online communication tool (e.g. social networking site, email) to retaliate aggressively ^a	76.8 (96)	9.6 (12)	8.8 (11)	4.8 (6)	78.7 (37)	12.8 (6)	2.1 (1)	6.4 (3)	75.6 (59)	7.7 (6)	12.8 (10)	3.8 (3)
I used a mobile phone (e.g. call or text) to discuss the incident with my girl/boyfriend non-aggressively ^b	59.7 (74)	11.3 (14)	19.4 (24)	9.7 (12)	68.1 (32)	8.5 (4)	14.9 (7)	8.5 (4)	54.5 (42)	13 (10)	22.1 (17)	10.4 (8)
I used an online communication tool (e.g. social networking site, email) to discuss the with my girl/boyfriend incident non-aggressively ^b	68.5 (85)	8.1 (10)	14.5 (18)	8.9 (11)	76.6 (36)	6.4 (3)	8.5 (4)	8.5 (4)	63.6 (49)	9.1 (7)	18.2 (14)	9.1 (7)
I took mobile action (e.g. blocked the person, changed number) ^b	77.4 (96)	8.1 (10)	8.1 (10)	6.5 (8)	80.9 (38)	6.4 (3)	6.4 (3)	6.4 (3)	75.3 (58)	9.1 (7)	9.1 (7)	6.5 (5)
I took online action (e.g. blocked the person, left the site, deleted account) ^b	79 (98)	10.5 (13)	5.6 (7)	4.8 (6)	83 (39)	10.6 (5)	0 (0)	6.4 (3)	76.6 (59)	10.4 (8)	9.1 (7)	3.9 (3)
I waited until I saw my girl/boyfriend in person to confront them non-aggressively and discuss the incident ^b	64.5 (80)	16.1 (20)	14.5 (18)	4.8 (6)	74.5 (35)	12.8 (6)	8.5 (4)	4.3 (2)	58.4 (45)	18.2 (14)	18.2 (14)	5.2 (4)
I waited until I saw my girl/boyfriend in person to confront them aggressively ^b	86.3 (107)	5.6 (7)	5.6 (7)	2.4 (3)	89.4 (42)	2.1 (1)	4.3 (2)	4.3 (2)	84.4 (65)	7.8 (6)	6.5 (5)	1.3 (1)
I told someone e.g. friend, sibling, parent, teacher, police, other adult ^b	66.9 (83)	12.1 (15)	13.7 (17)	7.3 (9)	83 (39)	4.3 (2)	6.4 (3)	6.4 (3)	57.1 (44)	16.9 (13)	18.2 (14)	7.8 (6)
I did not respond / no action taken ^c	78.9 (97)	5.7 (7)	8.1 (10)	7.3 (9)	80.9 (38)	4.3 (2)	6.4 (3)	8.5 (4)	77.6 (59)	6.6 (5)	9.2 (7)	6.6 (5)

Note: ^a 125 respondents (out of 202 who experienced some form of TAADVA); ^b 124 respondents (out of 202 who experienced some form of TAADVA); ^c 123 respondents (out of 202 who experienced some form of TAADVA)

Table A13.4Who told about TAADVA experience (*n* = 126)

	Total % (<i>n</i>)	Male % (<i>n</i>)	Female % (<i>n</i>)
Friend	33.3 (42)	25.5 (12)	38 (30)
Parent	7.9 (10)	6.4 (3)	8.9 (7)
Sibling	.8 (1)	2.1 (1)	0 (0)
Teacher	1.6 (2)	0 (0)	2.5 (2)
Friend, sibling, other	1.6 (2)	0 (0)	2.5 (2)
Friend, parent	3.2 (4)	4.3 (2)	2.5 (2)
Friend, teacher	1.6 (2)	0 (0)	2.5 (2)
Friend, parent, teacher	.8 (1)	0 (0)	1.3 (1)
Sibling, parent	.8 (1)	0 (0)	1.3 (1)
Other	4 (5)	2.1 (1)	5.1 (4)
N/a	44.4 (56)	59.6 (28)	35.4 (28)

Table A13.5

Response to TAADVA instigation

	Total % (n)				Male % (n)				Female % (n)			
	N	O	S	A	N	O	S	A	N	O	S	A
They used a mobile phone (e.g. call or text) to retaliate aggressively ^a	65.1 (56)	14 (12)	14 (12)	7 (6)	67.7 (21)	9.7 (3)	16.1 (5)	6.5 (2)	63.6 (35)	16.4 (9)	12.7 (7)	7.3 (4)
They used an online communication tool (e.g. SNS, email) to retaliate aggressively ^c	66.7 (56)	13.1 (11)	13.1 (11)	7.1 (6)	67.7 (21)	12.9 (4)	12.9 (4)	6.5 (2)	66 (35)	13.2 (7)	13.2 (7)	7.5 (4)
They used a mobile phone (e.g. call or text) to discuss the incident with me non-aggressively ^b	61.2 (52)	14.1 (12)	18.8 (16)	5.9 (5)	67.7 (21)	12.9 (4)	12.9 (4)	6.5 (2)	57.4 (31)	14.8 (8)	22.2 (12)	5.6 (3)
They used an online communication tool (e.g. SNS, email) to discuss the incident with me non-aggressively ^c	67.9 (57)	10.7 (9)	13.1 (11)	8.3 (7)	74.2 (23)	12.9 (4)	6.5 (2)	6.5 (2)	64.2 (34)	9.4 (5)	17 (9)	9.4 (5)
They took mobile action (e.g. blocked me, changed number) ^b	72.9 (62)	12.9 (11)	10.6 (9)	3.5 (3)	71 (22)	6.5 (2)	16.1 (5)	6.5 (2)	74.1 (40)	16.7 (9)	7.4 (4)	1.9 (1)
They took online action (e.g. blocked me, left the site, deleted account) ^b	74.1 (63)	15.3 (13)	7.1 (6)	3.5 (3)	74.2 (23)	12.9 (4)	6.5 (2)	6.5 (2)	74.1 (40)	16.7 (9)	7.4 (4)	1.9 (1)
They waited until they saw me in person to confront me non-aggressively and discuss the incident ^b	67.1 (57)	15.3 (13)	12.9 (11)	4.7 (4)	71 (22)	12.9 (4)	9.7 (3)	6.5 (2)	64.8 (35)	16.7 (9)	14.8 (8)	3.7 (2)
They waited until they saw me in person to confront me aggressively ^b	76.5 (65)	11.8 (10)	8.2 (7)	3.5 (3)	74.2 (23)	9.7 (3)	9.7 (3)	6.5 (2)	77.8 (42)	13 (7)	7.4 (4)	1.9 (1)
They told someone e.g. friend, sibling, parent, teacher, police, other adult ^c	73.8 (62)	9.5 (8)	9.5 (8)	7.1 (6)	74.2 (23)	12.9 (4)	6.5 (2)	6.5 (2)	73.6 (39)	7.5 (4)	11.3 (6)	7.5 (4)
They did not respond / no action taken ^d	79.5 (66)	10.8 (9)	2.4 (2)	7.2 (6)	74.2 (23)	12.9 (4)	3.2 (1)	9.7 (3)	82.7 (43)	9.6 (5)	1.9 (1)	5.8 (3)

Note: ^a 86 respondents (out of 145 who used some form of TAADVA); ^b 85 respondents (out of 145 who used some form of TAADVA); ^c 84 respondents (out of 145 who used some form of TAADVA); ^d 83 respondents (out of 145 who used some form of TAADVA)

Table A13.6Who girlfriend or boyfriend told about senders TAADVA use (*n* = 85)

	Total % (<i>n</i>)	Male % (<i>n</i>)	Female % (<i>n</i>)
Friend	17.6 (15)	26.7 (8)	12.7 (7)
Parent	7.1 (6)	6.7 (2)	7.3 (4)
Sibling	2.4 (2)	0 (0)	3.6 (2)
Friend, sibling	2.4 (2)	0 (0)	3.6 (2)
Friend, parent	4.7 (4)	3.3 (1)	5.5 (3)
Other	2.4 (2)	0 (0)	3.6 (2)
N/a	63.5 (54)	63.3 (19)	63.6 (35)

Outcome of TAADVA victimisation and instigation

Table A13.7

Result of TAADVA victimisation

	Total % (n)				Male % (n)				Female % (n)			
	N	O	S	A	N	O	S	A	N	O	S	A
The situation was resolved ^c	50.9 (54)	9.4 (10)	17 (18)	22.6 (24)	64.9 (24)	5.4 (2)	8.1 (3)	21.6 (8)	43.5 (30)	11.6 (8)	21.7 (15)	23.2 (16)
We made up or smoothed it over ^b	47.7 (51)	9.3 (10)	22.4 (24)	20.6 (22)	57.9 (22)	10.5 (4)	15.8 (6)	15.8 (6)	42 (29)	8.7 (6)	26.1 (18)	23.2 (16)
We had a verbal argument face-to-face ^c	66 (70)	13.2 (14)	17.9 (19)	2.8 (3)	73.7 (28)	7.9 (3)	13.2 (5)	5.3 (2)	61.8 (42)	16.2 (11)	20.6 (14)	1.5 (1)
We had a physical fight face-to-face ^a	85.2 (92)	6.5 (7)	5.6 (6)	2.8 (3)	84.6 (33)	7.7 (3)	2.6 (1)	5.1 (2)	85.5 (59)	5.8 (4)	7.2 (5)	1.4 (1)
We broke up ^b	60.7 (65)	17.8 (19)	14 (15)	7.5 (8)	71.1 (27)	10.5 (4)	10.5 (4)	7.9 (3)	55.1 (38)	21.7 (15)	15.9 (11)	7.2 (5)
It made our relationship better ^c	76.4 (81)	6.6 (7)	12.3 (13)	4.7 (5)	81.6 (31)	13.2 (5)	2.6 (1)	2.6 (1)	73.5 (50)	2.9 (2)	17.6 (12)	5.9 (4)

Note: ^a 108 respondents (out of 202 who used some form of TAADVA); ^b 107 respondents (out of 202 who used some form of TAADVA); ^c 106 respondents (out of 202 who used some form of TAADVA)

Table A13.8

Result of TAADVA instigation

	Total % (n)				Male % (n)				Female % (n)			
	N	O	S	A	N	O	S	A	N	O	S	A
The situation was resolved ^a	53.1 (43)	9.9 (8)	17.3 (14)	19.8 (16)	55.2 (16)	3.4 (1)	13.8 (4)	27.6 (8)	51.9 (27)	13.5 (7)	19.2 (10)	15.4 (8)
We made up or smoothed it over ^a	48.1 (39)	9.9 (8)	28.4 (23)	13.6 (11)	48.3 (14)	6.9 (2)	27.6 (8)	17.2 (5)	48.1 (25)	11.5 (6)	28.8 (15)	11.5 (6)
We had a verbal argument face-to-face ^a	64.2 (52)	11.1 (9)	22.2 (18)	2.5 (2)	62.1 (18)	6.9 (2)	27.6 (8)	3.4 (1)	65.4 (34)	13.5 (7)	19.2 (10)	1.9 (1)
We had a physical fight face-to-face ^a	81.5 (66)	7.4 (6)	9.9 (8)	1.2 (1)	79.3 (23)	6.9 (2)	13.8 (4)	0 (0)	82.7 (43)	7.7 (4)	7.7 (4)	1.9 (1)
We broke up ^a	66.7 (54)	14.8 (12)	14.8 (12)	3.7 (3)	65.5 (19)	13.8 (4)	17.2 (5)	3.4 (1)	67.3 (35)	15.4 (8)	13.5 (7)	3.8 (2)
It made our relationship better ^b	75 (60)	6.3 (5)	13.8 (11)	5 (4)	75.9 (22)	10.3 (3)	13.8 (4)	0 (0)	74.5 (38)	3.9 (2)	13.7 (7)	7.8 (4)

Note: ^a 81 respondents (out of 145 who used some form of TAADVA); ^b 80 respondents (out of 145 who used some form of TAADVA)

Discussion

The data presented in this appendix examined the impact, responses to, and outcome of TAADVA victimisation and instigation. With regards to the impact of TAADVA, females appear to tend to agree and males appear to disagree that their experience had a negative impact on them. Other research to have explored the impact of TAADVA is virtually non-existent. However, a recent study Barter et al. (2015a) similarly found female adolescents reported a negative impact of their experiences ADVA/TAADVA, while the majority of males reported being less affected, although impacts varied across the different types of violence.

In terms of adolescents' response to TAADVA victimisation, females appear to report more of all types of responses (aggressive, non-aggressive, avoidant, telling someone, and no action, via mobile, online, and in person). Most commonly, participants reported using non-aggressive responses (offline or online), however aggressive responses were also used. The person the respondent was most likely to tell about their TAADVA victimisation was a friend, followed by a parent, and 'other'. Both non-aggressive and aggressive responses were common for TAADVA instigation. The person the respondent's partner was most likely to tell was a friend, followed by a parent, and sibling or 'other'. Although there is little comparable research to these findings, previous research by Madlock and Westerman (2011) into the prevalence of hurtful cyber-teasing and the associated personal and relational outcomes with a sample of 211 university students found that the majority of victims preferred to confront their partner face-to-face (54%), followed by multiple methods (23%), text message or instant messenger (20%), no response (3%), and by telephone (0.5%). The reasons given for waiting to confront their partner face-to-face about the hurtful cyber-teasing were (a) the salience of the tease (i.e. the tease was bothersome to the target on some internal level) and (b) the degree of hurt (i.e. a response to the hurtful cyber-tease; Madlock and Westerman 2011). Draucker and Martsof (2010) identified that technology was used in adolescents' experiences of seeking help during a violent episode and reconnecting with a partner after a break-up or violent episode. In one of the first studies to investigate TAADVA, Picard (2007) however found that around three-quarters of young people who had experienced such behaviours by a dating partner reported that they did not tell their parents. The most common reasons reported for this were that the young people did not believe that the behaviours were serious enough to justify telling an adult or because of fears that parents may limit or take away their use of their computer, mobile phone or prevent them from seeing their partner. Only one in 10

adolescent victims of TAADVA sought help in Zweig et al.'s (2013a) study. As in the findings of this study (33%; 17% males and 43% females), research on ADVA has also found that overall, male students were markedly less likely to talk to someone about their experience of violence than their female counterparts (Jackson et al. 2000 and Barter et al. 2009).

With regard to the outcome of TAADVA victimisation, the prevalence statistics for females were higher for all outcomes (positive and negative) except for 'physical fighting in person' than males. The most commonly reported outcome for TAADVA was that the respondent and partner made up or smoothed the situation over. Very little other research has explored this area and even less so with adolescents. Madlock and Westerman (2011) investigated the outcome of hurtful cyber-teasing and the degree to which it escalated into face-to-face verbally aggressive encounters and physical violence. They found three primary types of face-to-face verbally aggressive exchanges between relational partners as a result of hurtful cyber-teasing; physical appearance attacks, intellect attacks, and character attacks, reflecting similar behaviours to those described and measured as 'cyber-teasing' in this study (e.g. insults and putdowns). Three primary forms of physically violent behaviours, were also identified; human to human contact (e.g. physical dating violence behaviours), human to object contact (e.g. punched a wall or threw a mobile phone at the wall or floor and smashed it), and object to human contact (e.g. hit partner with an object or a mobile phone).

These findings highlight implications for future practice and research. The potential gendered nature to the impact of TAADVA, whereby females appear to disclose more emotional affects of TAADVA than males highlights implications for intervention and a need for future research. These findings also highlight a need for education regarding TAADVA and its impact, in addition to awareness of how to safely respond to TAADVA constructively, report abuse, and to leave an abusive relationship safely. Policies that also encourage help-seeking through the provision of appropriate services (e.g. in schools) would also help to provide opportunity for young people to disclose ADVA/TAADVA and to seek support. It is evident that there is a gap in literature to have explored the impact, response, and outcome of TAADVA victimisation and instigation, an area that is in need of further research. Unfortunately, there is therefore little research to compare these findings to.

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Appendix 6: Pre-pilot questionnaire

Participant Number: _____

Adolescent Dating Bullying/Abuse via Electronic Communication Technology

This questionnaire aims to gain your responses to questions that will help us to understand the nature, occurrence and impact of bullying and abusive behaviours in adolescent dating relationships experienced or performed with the use of a variety of electronic communication technologies such as mobile phones and the Internet. In addition, general information regarding personal details, dating experience and mobile phone and Internet use will also be sought.

Please **circle** your answer from the list given referring to the numbered scales where present. Please only circle one answer unless it is stated otherwise. If you make a mistake cross out the answer and circle your chosen answer. If you do not understand a question or need any help filling in this questionnaire, please ask the researcher/teacher present

Q	Section 1: Demographic Information							
1.1	Gender	Male				Female		
1.2	Age	12	13	14	15	16	17	18
1.3	School year	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
1.4	Ethnicity	White	Asian	Black	Chinese	Mixed	Other	
1.5	Parental marital status	Married	Living with partner but not married		Separated	Divorced	Widowed	Single

Q	Section 2: Dating Experience					
	Definition of dating "Dating" is a term used to describe when two people are in an intimate relationship. The relationship may be sexual, but it does not have to be. (Love is Respect 2013)					
2.1	Have you ever had a dating relationship?	Yes	No			
2.2	Are you currently in a dating relationship?	Yes	No			
2.3	Do you know someone your age who has had a dating relationship?	Yes	No			
If you have NEVER had a relationship please continue to Section 3: Communication Technology Use						
2.4	How old were you when you started dating relationships?	<7	8	9	10	11 12 13 14 15 16 17 18
2.5	How many dating relationships have you had since you started dating?	1	2-3	4-5	6-9	10 or more
2.6	How often do you usually see your current or most recent dating partner outside of school?	Less than once a month	Once a month	Once a fortnight	Once a week	Several times a week Every day
2.7	How long do you usually spend with your current or most recent partner when you spend time together?	0-1 hours	1-2 hours	2-3 hours	3-4 hours	4+ hours
2.8	What do you usually do when you spend time with your dating partner? Please tick in the column on the right which activities apply to you.	Activity				√
		Talking / Hanging out in person				
		Go to the cinema				
		Go to the shopping centre				
		Go to somewhere to eat				
		Go to each other's houses				
		Hang out with friends				
		Kissing				
		Sexually intimate behaviours				
Sleeping together						
2.9	Partner's typical age?	More than 2 years younger	1-2 years younger	Roughly the same age / school year	1-2 years older	More than 2 years older
2.10	Length of current or most recent serious relationship?	1 - 4 weeks	1 - 3 months	3 - 6 months	6 - 12 months	More than a year

Q	Section 3: Communication and Technology Use							
	Rate the following statements using the key on the right.	1	2	3	4	5	6	7
		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once
3.1	How often do you call your friends?	1	2	3	4	5	6	7
3.2	How often do you call your girlfriend/boyfriend?	1	2	3	4	5	6	7
3.3	How often do you text your friends?	1	2	3	4	5	6	7
3.4	How often do you text your girlfriend/boyfriend?	1	2	3	4	5	6	7
3.5	How often have you sent 'sexting' messages or images to your girlfriend/boyfriend?	1	2	3	4	5	6	7
3.6	How often have you received 'sexting' messages or images via mobile phone to my girl/boyfriend?	1	2	3	4	5	6	7
3.7	How often do you talk to your friends online?	1	2	3	4	5	6	7
3.8	How often do you talk to your girlfriend/boyfriend online?	1	2	3	4	5	6	7
3.9	How often do you use Instant messaging?	1	2	3	4	5	6	7
3.10	How often do you use Social Networking Sites (e.g. Facebook)?	1	2	3	4	5	6	7
3.11	How often do you use Chat Rooms?	1	2	3	4	5	6	7
3.12	How often do you keep an online journal or blog?	1	2	3	4	5	6	7
3.13	How often do you spend on Email?	1	2	3	4	5	6	7
3.14	How often do you post pictures / videos of yourself online?	1	2	3	4	5	6	7
3.15	Have you ever looked for a partner online or dated someone online?	1	2	3	4	5	6	7
3.16	Where do you have access to the internet? Please tick in the column on the right which activities apply to you.	Access						√
		Mobile phone						
		Ipad/Tablet computer						
		Laptop						
		PC / Computer						
		Home						
		Bedroom						
		School						
Library								
Friends								

Corresponding Definitions

Cyberbullying

- An aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al. 2008: 376)

Hurtful cyber-teasing

- Hurtful cyber-teasing has been described as, like bullying, to include verbal aggression and deliberate acts designed to cause tension in the victim, such as anxiety, frustration, anger, embarrassment, and humiliation (Warm 1997, cited in Madlock and Westerman 2011)

Online harassment

- Online harassment can consist of threatening, worrisome, emotionally hurtful, or sexual messages delivered via an electronic medium that can lead victims to feel fear or distress much like real-world harassment and stalking (Bossler *et al.* 2012)

Definition of adolescent dating violence and abuse

- “any threatening, controlling, violent, abusive or harassment behaviours that are directed towards a current or former romantic partner by the other within the context of a teenage dating relationship. This can include either or a combination of physical, psychological / emotional and sexual behaviours and can take place in person or via electronic communication technology (such as a mobile phone or online) and occurs regardless of gender or sexuality” (Stonard 2013).

Q		Section 4: Bullying/Abusive Dating Behaviours													
		<p>In the previous 12 months (1 year) please use the scale below to rate the following questions in terms of whether you have RECEIVED or DONE the following behaviours in a dating relationship. If you <u>HAVE NOT</u> had a dating relationship in the last 12 months please continue to <u>SECTION 7</u></p> <p>Please only include when you performed the act first e.g. not in self-defence or when you experienced it first e.g. not in retaliation.</p>													
		1	2	3	4	5	6	7							
KEY		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once							
4.1	How often have you received from a dating partner and how often have you said/sent to a dating partner, insulting, mean or hurtful personal comments in person and via the 8 technologies below?														
		NATURE		RECEIVED			SAID/SENT								
4.1.1	In Person	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.2	Call	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.3	Text	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.4	Picture / Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.5	Email	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.6	Social Networking Site	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.7	Instant Messenger	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.8	Chat Room	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.1.9	Website / Blog	1	2	3	4	5	6	7	1	2	3	4	5	6	7
		1	2	3	4	5	6	7							
KEY		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once							
4.2	How often have you received from a dating partner and how often have you said/sent to a dating partner, comments or acts that were intended to embarrass, humiliate or shame you/your partner publically in person and via the 8 technologies below?														
		NATURE		RECEIVED			SAID/SENT								
4.2.1	In Person	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.2	Call	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.3	Text	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.4	Picture / Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.5	Email	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.6	Social Networking Sites	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.7	Instant Messenger	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.8	Chat Room	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.2.9	Website / Blog	1	2	3	4	5	6	7	1	2	3	4	5	6	7
		1	2	3	4	5	6	7							
KEY		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once							
4.3	How often have you received from a dating partner and how often have you said/sent to a dating partner, threatening comments or behaviours that were used to threaten harm, intimidate or bully (including blackmail) in person and via the 8 technologies below?														
		NATURE		RECEIVED			SAID/SENT								
4.3.1	In Person	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.2	Call	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.3	Text	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.4	Picture / Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.5	Email	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.6	Social Networking Sites	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.7	Instant Messenger	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.8	Chat Room	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.3.9	Website / Blog	1	2	3	4	5	6	7	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7							
		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once							
4.4	How often have you received from a dating partner and how often have you said/sent to a dating partner, harassing, repeated, frequent, excessive or unwanted messages, calls or behaviours in person and via the 8 technologies below?														
	NATURE	RECEIVED				SAID/SENT									
4.4.1	In Person	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.2	Call	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.3	Text	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.4	Picture / Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.5	Email	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.6	Social Networking Sites	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.7	Instant Messenger	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.8	Chat Room	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.4.9	Website / Blog	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7							
		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once							
4.5	How often have you received from a dating partner and how often have you said/sent to a dating partner, sexually harassing messages, calls or behaviours such as receiving or sending repeated, frequent, excessive or unwanted inappropriate sexual material, language or behaviour in person and via the 8 technologies below?														
	NATURE	RECEIVED				SAID/SENT									
4.5.1	In Person	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.2	Call	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.3	Text	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.4	Picture / Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.5	Email	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.6	Social Networking Sites	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.7	Instant Messenger	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.8	Chat Room	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.5.9	Website / Blog	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7							
		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once							
4.6	How often have you received from a dating partner and how often have you done/sent to a dating partner, monitoring or controlling behaviours e.g. checking mobile phone and online social networking histories for contacts, calls, messages, friends and controlling friends and social networks in person and via the 8 technologies below?														
	NATURE	RECEIVED				PERFORMED									
4.6.1	In Person	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.2	Call	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.3	Text	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.4	Picture / Video	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.5	Email	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.6	Social Networking Sites	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.7	Instant Messenger	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.8	Chat Room	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.6.9	Website / Blog	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Q		Section 5: Physical dating violence												
5.1	KEY	1	2	3	4	5	6	7						
		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once						
	How often have you received or used physical violence (i.e. the intentional use of physical force with the potential for causing injury or harm) from/towards a dating partner? Please only include when you performed the act first e.g. not in self-defence													
Physical violence		RECEIVED					USED							
		1	2	3	4	5	6	7	1	2	3	4	5	6

Q		Section 6: What was the most common reason for the technology-assisted dating bullying/abuse reported in Section 4?						
6.1	Received	Didn't experience	Joke / play	Argument	Bully	Control	I did something wrong	Don't know
6.2	Used	Didn't perform	Joke / play	Argument	Bully	Control	They did something wrong	Don't know

Q	Section 7: Awareness of peer dating violence and abuse					
7.1	How many friends have told you they have experienced hurtful, bullying or controlling behaviours from a dating partner electronically at least once?	0	1	2	3	3+
7.2	How many friends have told you they have used hurtful, bullying or controlling behaviours to a dating partner electronically at least once?	0	1	2	3	3+
7.3	How many friends have told you they have experienced physically aggressive, bullying or controlling behaviours from a dating partner in person at least once?	0	1	2	3	3+
7.4	How many friends have told you they have used physically aggressive, bullying or controlling behaviours to a dating partner in person at least once?	0	1	2	3	3+
7.5	How many friends have told you they have experienced emotionally hurtful, bullying or controlling behaviours from a dating partner in person at least once?	0	1	2	3	3+
7.6	How many friends have told you they have used emotionally hurtful, bullying or controlling behaviours to a dating partner in person at least once?	0	1	2	3	3+
7.7	How many friends have told you they have experienced sexually aggressive, bullying or controlling behaviours from a dating partner in person at least once?	0	1	2	3	3+
7.8	How many friends have told you they have used sexually aggressive, bullying or controlling behaviours to a dating partner in person at least once?	0	1	2	3	3+

Q	Section 8: Please rate whether you perceive the impact of abusive, bullying and controlling dating behaviours via electronic communication technology as <u>less, the same, or more</u> harmful in impact compared to that experienced in person			
	KEY	1	2	3
		Less	The Same	More
8.1	Phone call?	1	2	3
8.2	Text?	1	2	3
8.3	Picture / video (mobile or online)?	1	2	3
8.4	Email?	1	2	3
8.5	Social Networking Sites?	1	2	3
8.6	Instant Messenger?	1	2	3
8.7	Chat room?	1	2	3
8.8	Website / Blog?	1	2	3
8.9	Can you give details to explain your chosen answers above?			

Please read before continuing...

If you have **NEVER** experienced or used any of the abusive behaviours in a dating relationship in Section 4, you do not need to answer any further questions in this questionnaire.

If you **HAVE** indicated that you have experienced or used any of the abusive behaviours in a dating relationship in Section 4, please continue answering the questions as fully as possible.

Section 9: Impact of bullying/abusive dating behaviours via electronic communication technology							
Q	KEY	1	2	3	4	5	6
		Not applicable	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
9.1	Please rate whether your EXPERIENCE of electronic bullying/abusive behaviours from a dating partner had an impact on you for the following statements:						
9.1.1	It had no impact on me at all	1	2	3	4	5	6
9.1.2	It had an impact on me personally	1	2	3	4	5	6
9.1.3	I was sad or hurt emotionally	1	2	3	4	5	6
9.1.4	I was distressed	1	2	3	4	5	6
9.1.5	I was angry	1	2	3	4	5	6
9.1.6	I was embarrassed	1	2	3	4	5	6
9.1.7	I was anxious	1	2	3	4	5	6
9.1.8	I felt guilty	1	2	3	4	5	6
9.1.9	I was scared or afraid	1	2	3	4	5	6
9.1.10	I cried	1	2	3	4	5	6
9.1.11	I missed school because of it (at least once)	1	2	3	4	5	6
9.1.12	It had an impact on my relationship	1	2	3	4	5	6
Q	KEY	1	2	3	4	5	6
		Not applicable	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
9.2	Please rate whether you USING electronic bullying/abusive behaviours towards a dating partner had an impact on you for the following statements:						
9.2.1	It had no impact on me at all	1	2	3	4	5	6
9.2.2	It had an impact on me personally	1	2	3	4	5	6
9.2.3	I was sad or hurt emotionally	1	2	3	4	5	6
9.2.4	I was distressed	1	2	3	4	5	6
9.2.5	I was angry	1	2	3	4	5	6
9.2.6	I was embarrassed	1	2	3	4	5	6
9.2.7	I was anxious	1	2	3	4	5	6
9.2.8	I felt guilty	1	2	3	4	5	6
9.2.9	I was scared or afraid	1	2	3	4	5	6
9.2.10	I cried	1	2	3	4	5	6
9.2.11	I missed school because of it (at least once)	1	2	3	4	5	6
9.2.12	It had an impact on my relationship	1	2	3	4	5	6

Q	Section 10: Result of dating bullying/abuse via electronic communication technology							
	KEY	1 Not applicable	2 Never	3 Once	4 Sometimes	5 Always		
10.1	What was your response to your EXPERIENCE of electronic bullying/abusive behaviours in your dating relationship?							
10.1.1	I used a mobile phone (call or text) to retaliate aggressively		1	2	3	4	5	
10.1.2	I used an online communication tool (e.g. social networking site, email) to retaliate aggressively		1	2	3	4	5	
10.1.3	I used a mobile phone (call or text) to discuss the incident with my girl/boyfriend non-aggressively		1	2	3	4	5	
10.1.4	I used an online communication tool (e.g. social networking site, email) to discuss the incident non-aggressively		1	2	3	4	5	
10.1.5	I took mobile action (e.g. blocked the person, changed number)		1	2	3	4	5	
10.1.6	I took online action (e.g. blocked the person, left the site, deleted account)		1	2	3	4	5	
10.1.7	I waited until saw my girl/boyfriend face-to-face to confront them non-aggressively and discuss the incident		1	2	3	4	5	
10.1.8	I waited until saw my girl/boyfriend face-to-face to confront them aggressively		1	2	3	4	5	
10.1.9	I told someone e.g. friend, sibling, parent, teacher, police, other adult		1	2	3	4	5	
10.1.10	I did not respond / no action taken		1	2	3	4	5	
10.1.11	If you indicated that you had told someone about your experience, who did you tell?		Friend	Sibling	Parent	Teacher	Police	Other
10.2	What was the outcome of the electronic bullying/abusive behaviours you EXPERIENCED in your dating relationship?							
10.2.1	The situation was resolved		1	2	3	4	5	
10.2.2	We made up or smoothed it over		1	2	3	4	5	
10.2.3	Outcome of verbal face-to-face aggression		1	2	3	4	5	
10.2.4	Outcome of physical face-to-face aggression		1	2	3	4	5	
10.2.5	We broke up		1	2	3	4	5	
	KEY	1 Not applicable	2 Never	3 Once	4 Sometimes	5 Always		
10.3	What was your partner's response to you USING electronic bullying/abusive behaviours in your dating relationship?							
10.3.1	They used a mobile phone (call or text) to retaliate aggressively		1	2	3	4	5	
10.3.2	They used an online communication tool (e.g. social networking site, email) to retaliate aggressively		1	2	3	4	5	

10.3.3	They used a mobile phone (call or text) to discuss the incident with me non-aggressively	1	2	3	4	5	
10.3.4	They used an online communication tool (e.g. social networking site, email) to discuss the incident me non-aggressively	1	2	3	4	5	
10.3.5	They took mobile action (e.g. blocked me, changed their number)	1	2	3	4	5	
10.3.6	They took online action (e.g. blocked me, left the site, deleted account)	1	2	3	4	5	
10.3.7	They waited until they saw me face-to-face to confront me non-aggressively and discuss the incident	1	2	3	4	5	
10.3.8	They waited until they saw me face-to-face to confront me aggressively	1	2	3	4	5	
10.3.9	They told someone about my actions e.g. friend, sibling, parent, teacher, police, other adult	1	2	3	4	5	
10.3.10	They did not respond / no action was taken	1	2	3	4	5	
10.3.11	If you indicated that they had told someone about your experience, who did they tell	Friend	Sibling	Parent	Teacher	Police	Other
10.4	What was the outcome of the electronic bullying/abusive behaviours you USED in your dating relationship?						
10.4.1	The situation was resolved	1	2	3	4	5	
10.4.2	We made up or smoothed it over	1	2	3	4	5	
10.4.3	Outcome of verbal face-to-face aggression	1	2	3	4	5	
10.4.4	Outcome of physical face-to-face aggression	1	2	3	4	5	
10.4.5	We broke up	1	2	3	4	5	

Q	Section 11: Aggressive or abusive behaviours experienced after the relationship had ended							
	KEY	1	2	3	4	5	6	7
		Never	Monthly	Fortnightly	Weekly	Daily	Hourly	Only once
11.1	Did you continue to EXPERIENCE the following behaviours via electronic communication technology from your partner after you broke up?							
11.1.1	Insulting, mean or hurtful personal comments	1	2	3	4	5	6	7
11.1.2	Acts to embarrass, humiliate or shame you	1	2	3	4	5	6	7
11.1.3	Threatening behaviours, intimidation (blackmail)	1	2	3	4	5	6	7
11.1.4	Repeated, frequent, excessive or unwanted contact	1	2	3	4	5	6	7
11.1.5	Sexual harassment or inappropriate or unwanted sexual material or language	1	2	3	4	5	6	7
11.1.6	Monitoring or controlling behaviours e.g. checking mobile phone and online chat histories	1	2	3	4	5	6	7
11.2	Did you continue to USE the following behaviours via electronic communication technology to your partner after you broke up?							
11.2.1	Insulting, mean or hurtful personal comments	1	2	3	4	5	6	7
11.2.2	Acts to embarrass, humiliate or shame you	1	2	3	4	5	6	7
11.2.3	Threatening behaviours, intimidation (blackmail)	1	2	3	4	5	6	7
11.2.4	Repeated, frequent, excessive or unwanted contact	1	2	3	4	5	6	7
11.2.5	Sexual harassment or inappropriate or unwanted sexual material or language	1	2	3	4	5	6	7
11.2.6	Monitoring or controlling behaviours e.g. checking mobile phone and online chat histories	1	2	3	4	5	6	7

Thank you for completing this survey

Appendix 7: Children’s social desirability scale

Participant Reference Code: _____

CSDS

This questionnaire lists a number of experiences that most children and young people have at one time or another. Read each of these carefully. After you have read one, decide whether it does or does not fit you. If it does, put a T (for true) after the statement; if it doesn't, put a F (for false) in front of the statement.		
1	I have never felt like saying unkind things to another person	
2	I am always careful about keeping my clothing neat, and my room neat and tidy	
3	Sometimes I feel like staying home from school even when I am not sick	
4	I never say anything that would make a person feel bad	
5	I am always polite, even to people who are not very nice	
6	Sometimes I do things I've been told not to do	
7	I always listen to my parents	
8	Sometimes I wish I could just “mess around” instead of having to go to school	
9	I have never been tempted to break a rule or a law	
10	I sometimes feel angry when I don't get my way	
11	I sometimes feel like making fun of other people	
12	I always do the right things	
13	Sometimes I don't like to obey my parents	
14	Sometimes I get mad when people don't do what I want	

Appendix 8: Ethics for pilot study

REGISTRY RESEARCH UNIT ETHICS REVIEW FEEDBACK FORM

(Review feedback should be completed within 10 working days)

Name of applicant: Karlie Stonard

Faculty/School/Department: [Faculty of Health and Life Sciences] Psychology & Behavioural Sciences

Research project title: The Nature, Prevalence and Impact of Technology Assisted Adolescent Dating Violence

Comments by the reviewer

Evaluation of the ethics of the proposal:	
<p>This is an ethically sensitive but very important topic. Overall I think that the project looks acceptable. I would support the use of an Opt Out procedure in this specific instance as the content aligns with content that the students would be expected to cover in classroom discussions in relevant curricular areas. I did wonder about the impact that having a classroom teacher present during the child consent phase might have on children's consent - would they feel obliged to consent because their teacher is standing there? The researcher needs to emphasise the fact that this is something completely optional and unconnected to the school, and that the information will not be shared with their relevant class teacher. I would also encourage the team to develop and have in place a clear protocol re how they propose to handle the disclosure of ongoing abuse / bullying in the context of the discussions. What are the legal as well as the moral and professional obligations of the researcher in this instance and how will the team liaise with the school in these instances. The school will have a child protection policy which needs to be respected in the context of this protocol</p>	
Evaluation of the participant information sheet and consent form:	
<p>Appropriate although there is at least one typo in the PIS, and in the debrief 'medias' is used as the plural of medium. Media is the plural form. Also please put a deadline for opting out on the opt out form for parents.</p>	
<p>Recommendation: (Please indicate as appropriate and advise on any conditions. If there are any conditions, the applicant will be required to resubmit his/her application and this will be sent to the same reviewer).</p>	
<input type="checkbox"/>	Approved - no conditions attached
<input checked="" type="checkbox"/>	Approved with minor conditions (no need to re-submit)
<input type="checkbox"/>	Conditional upon the following – please use additional sheets if necessary (please re-submit application)
<input type="checkbox"/>	Rejected for the following reason(s) – please use other side if necessary
<input type="checkbox"/>	Not required

Name of reviewer: Anonymous

Date: 28/10/2013

Appendix 9: Pilot study focus group schedule

Focus Group Questions

The Questionnaire [*Give blank copy to participants to make notes and comments on*]

- How did you find the questionnaire to fill in?
- Was there anything you did not understand?
- What did you think about the length of the questionnaire? How much did you manage to fill in?
- What are your opinions on the format / layout?
- What do you think about the language? Is it appropriate to your age group?

- Have the most appropriate terms/terminology been used? Could you suggest anything different or not included?
 - What do you/teenagers describe as 'dating' / a romantic relationship?
 - How would you/teenagers describe teenage dating relationships? What dating activities or behaviours typically take place in teenage romantic relationships?
 - Serous/not serious dating activities / relationships? How long is serious?
 - What does it mean to be in a dating relationship?
 - How would you/teenagers define the term / would you use the term 'girlfriend or boyfriend, or partner or date? What does that mean?
 - How old are young people when they start dating do you think? Do you know many peers who are or have been dating? Pressure to date?
 - Which words describe signs of a healthy / unhealthy relationship?

- Are the electronic communication technologies and types of usage identified relevant to teenagers/yourself? Need a definition of technology types? (e.g. what SNS's, chatrooms are etc..)?
 - What technologies do you/teenagers use? What do you use them for?
 - How do you/teenagers communicate with friends and/or boyfriends or girlfriends?

- Do you/teenagers use online communication and/or mobile phones to establish relationships/friendships?
- What would you describe as healthy (safe) and unhealthy (unsafe) mobile or online communication behaviours with a dating partner?
- Impact of Tech Abuse?
 - How to stop technology assisted abuse?

- Anything missed?
- Anything inappropriate?
- How did it make you feel completing the questionnaire?
- Did anything shock or upset you filling in the questionnaire?
- Would you want to learn more about healthy and unhealthy relationships?
- Would you like support for any issues raised during the questionnaire?

Appendix 10: Main study questionnaire

Participant Number: _____

Adolescent Dating Relationships and Technology-Assisted Abuse and Control

This questionnaire aims to gain your responses to questions that will help us to understand the role of technology (e.g. mobile phones, communication tools via the Internet) in teenage dating relationships, abusive and controlling behaviours.

Please answer the questions as fully and as honestly as possible. This questionnaire is anonymous and you will not be identified by your answers. You *do not* however, have to answer any questions that make you feel uncomfortable. There are *no consequences* if you decide not to continue taking part in this survey.

Start from Section 1 and follow the instructions. Please **circle** your answer from the list given using the numbered scales where present. Please only circle one answer. If you make a mistake cross out the answer and circle your chosen answer. If you do not understand a question or need any help filling in this questionnaire, please ask the researcher or teacher present. Thank you for your time.

Q	Section 1: Demographic Information								
1.1	Gender	Male				Female			
1.2	Age	12	13	14	15	16	17	18	
1.3	School year	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	
1.4	Ethnicity	White	Asian	Black	Chinese	Mixed	Other		
1.5	Parental marital status	Married	Separated	Divorced	Living with partner	Single	Widowed		

Q	Section 2: Dating Experience												
	<p><u>Definition of a Dating Relationship</u></p> <p>“Dating” is a term used to describe when two people are in a romantic relationship. Most young people describe this as “going out” and refer to a dating partner as a “girlfriend” or “boyfriend”. The relationship may be sexual, but it does not have to be.</p>												
2.1	Have you ever had a girlfriend or boyfriend?	Yes		No									
2.2	Do you currently have a girlfriend or boyfriend?	Yes		No									
2.3	Have you had a girlfriend or boyfriend in the last 12 months?	Yes		No									
2.4	Have you ever met a girlfriend or boyfriend online? (e.g. not face-to-face at first)	Yes		No									
2.5	Did you meet your current or most recent partner online?	Yes		No									
	<p>If you have NEVER had a girlfriend or boyfriend OR HAVE NOT had a girlfriend or boyfriend in the LAST 12 MONTHS please continue to Section 5: Peer Awareness of Technology-Assisted Dating Bullying/Abuse</p> <p>If you HAVE had a girlfriend or boyfriend in the LAST 12 MONTHS, please continue to answer the questions below</p>												
2.6	How old were you when you started having girlfriends / boyfriends?	<7	8	9	10	11	12	13	14	15	16	17	18
2.7	How many girlfriends/boyfriends have you had since you started dating?	1		2-3		4-5		6-9		10+			
2.8	How old is your current or most recent girlfriend or boyfriend?	More than 2 years younger		1-2 years younger		Roughly the same age		1-2 years older		More than 2 years older			
2.9	How long is/was your current or most recent relationship?	1 - 4 weeks		1 - 3 months		3 - 6 months		6 - 12 months		More than a year			
2.10	If you are not currently in a relationship, how long ago was your most recent relationship?	N/A		Less than 2 months		2-6 months		6-12 months		More than 1 year			
2.11	How often do/did you see your current or most recent girlfriend / boyfriend outside of school?	Less than once a month		Once a month		Once a fortnight		Once a week		Several times a week		Every day	
2.12	How long do/did you usually spend with your current or most recent girlfriend/boyfriend when you spend time together?	0-1 hours		1-2 hours		2-3 hours		3-4 hours		4+ hours			

		The following questions refer to your relationship with your current or most recent girlfriend or boyfriend. Please use the following KEY to respond to the following statements.								
KEY		Strongly Disagree	1	2	3	<u>4</u>	5	6	7	Strongly Agree
2.13	My relationship with my girlfriend or boyfriend is close	1	2	3	<u>4</u>	5	6	7		
2.14	When we are apart, I miss my girlfriend or boyfriend a great deal	1	2	3	<u>4</u>	5	6	7		
2.15	My girlfriend or boyfriend and I tell important personal things to each other	1	2	3	<u>4</u>	5	6	7		
2.16	My girlfriend or boyfriend and I have a strong connection	1	2	3	<u>4</u>	5	6	7		
2.17	My girlfriend or boyfriend and I want to spend time together	1	2	3	<u>4</u>	5	6	7		
2.18	I'm sure of my relationship with my girlfriend or boyfriend	1	2	3	<u>4</u>	5	6	7		
2.19	My girlfriend or boyfriend is a priority in my life	1	2	3	<u>4</u>	5	6	7		
2.20	My girlfriend or boyfriend and I do a lot of things together	1	2	3	<u>4</u>	5	6	7		
2.21	When I have free time I choose to spend it alone with my girlfriend or boyfriend	1	2	3	<u>4</u>	5	6	7		
2.22	I think about my girlfriend or boyfriend a lot	1	2	3	<u>4</u>	5	6	7		
2.23	My relationship with my girlfriend or boyfriend is important in my life	1	2	3	<u>4</u>	5	6	7		
2.24	I consider my girlfriend or boyfriend when making important decisions	1	2	3	<u>4</u>	5	6	7		

Corresponding Definitions

Cyberbullying

Cyberbullying is an aggressive act carried out by a group or an individual, using electronic forms of contact (e.g. a mobile phone or the Internet), on more than one occasion over time against a victim who cannot easily defend him or herself.

Hurtful cyber-teasing

Hurtful cyber-teasing, like bullying, can include mean, insulting or hurtful comments and acts that are intended to make the victim feel embarrassed, humiliated, anxious, frustrated, or angry.

Online harassment

Online harassment can include unwanted, excessive contact or threatening, worrying, emotionally hurtful, or sexual messages via electronic forms of contact that can lead victims to feel fear or distress much like stalking.

Definition of adolescent dating violence

Adolescent dating violence includes any behaviours that are threatening, controlling, violent, abusive, harassment or stalking that are directed towards a current or former romantic partner by the other within the context of a teenage (10-18 years old) dating relationship. This can include either or a combination of physical, psychological/emotional and sexual behaviours and can take place in person or electronically via technology (such as a mobile phone or online), regardless of gender or sexuality.

Technologies

Phone Call – Verbal communication over a mobile phone network or Landline

Text Message – Sending an electronic message between mobile phones or portable devices

Instant Messenger (IM) (e.g. BlackBerry Messenger, WhatsApp, MSN) – Online real-time text messaging

Social Networking Site (SNS) (e.g. Facebook, Twitter, MySpace) – A Website that enables users to create public profiles and communicate and form relationships with others

Picture Message (e.g. SnapChat) – Exchange of a picture via e.g. a text or IM between a mobile or portable device

Video Chat (e.g. Skype) – Technology for audio and video interaction in real-time between users at separate locations usually via a Computer, Tablet or Smartphone

Email – Exchanging digital messages via the Internet

Chatroom – A branch of computer network in which participants can engage in real-time discussions with one another (group chat)

Website/Blog – A Website is a set of webpages that are prepared and maintained as a collection of information by a person, group, or organisation. A Blog is a personal website or web page on which an individual records opinions, links to other sites, etc. on a regular basis.

Q		Section 3: Technology-Assisted Dating Abuse Received						
		Please use the following KEY to rate for each technology media, how often you have RECEIVED the following behaviours from your current or a recent girlfriend or boyfriend in the LAST 12 MONTHS. Please answer as accurately and honestly as possible.						
KEY		1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.1	Insulting, mean or hurtful personal comments e.g. called you names, put downs etc.							
3.1.1	Phone Call	1	2	3	4	5	6	7
3.1.2	Text Message	1	2	3	4	5	6	7
3.1.3	Instant Messenger	1	2	3	4	5	6	7
3.1.4	Social Networking Site	1	2	3	4	5	6	7
3.1.5	Picture Message	1	2	3	4	5	6	7
3.1.6	Video Chat	1	2	3	4	5	6	7
3.1.7	Email	1	2	3	4	5	6	7
3.1.8	Chatroom	1	2	3	4	5	6	7
3.1.9	Website/Blog	1	2	3	4	5	6	7
KEY		1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.2	Comments or acts that were intended to embarrass, humiliate or shame you e.g. spreading rumours							
3.2.1	Phone Call	1	2	3	4	5	6	7
3.2.2	Text Message	1	2	3	4	5	6	7
3.2.3	Instant Messenger	1	2	3	4	5	6	7
3.2.4	Social Networking Site	1	2	3	4	5	6	7
3.2.5	Picture Message	1	2	3	4	5	6	7
3.2.6	Video Chat	1	2	3	4	5	6	7
3.2.7	Email	1	2	3	4	5	6	7
3.2.8	Chatroom	1	2	3	4	5	6	7
3.2.9	Website/Blog	1	2	3	4	5	6	7
KEY		1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.3	Shared or distributed private or personal information/images/video etc..							
3.3.1	Phone Call	1	2	3	4	5	6	7
3.3.2	Text Message	1	2	3	4	5	6	7
3.3.3	Instant Messenger	1	2	3	4	5	6	7
3.3.4	Social Networking Site	1	2	3	4	5	6	7
3.3.5	Picture Message	1	2	3	4	5	6	7
3.3.6	Video Chat	1	2	3	4	5	6	7
3.3.7	Email	1	2	3	4	5	6	7
3.3.8	Chatroom	1	2	3	4	5	6	7
3.3.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.4	Threatening comments or behaviours that were intended to threaten harm, intimidate or bully you.							
3.4.1	Phone Call	1	2	3	4	5	6	7
3.4.2	Text Message	1	2	3	4	5	6	7
3.4.3	Instant Messenger	1	2	3	4	5	6	7
3.4.4	Social Networking Site	1	2	3	4	5	6	7
3.4.5	Picture Message	1	2	3	4	5	6	7
3.4.6	Video Chat	1	2	3	4	5	6	7
3.4.7	Email	1	2	3	4	5	6	7
3.4.8	Chatroom	1	2	3	4	5	6	7
3.4.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.5	Been contacted to check on you and ask you where you are, what you are doing and who you are with.							
3.5.1	Phone Call	1	2	3	4	5	6	7
3.5.2	Text Message	1	2	3	4	5	6	7
3.5.3	Instant Messenger	1	2	3	4	5	6	7
3.5.4	Social Networking Site	1	2	3	4	5	6	7
3.5.5	Picture Message	1	2	3	4	5	6	7
3.5.6	Video Chat	1	2	3	4	5	6	7
3.5.7	Email	1	2	3	4	5	6	7
3.5.8	Chatroom	1	2	3	4	5	6	7
3.5.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.6	Asked or pressured you to engage in sexual acts or to send messages/pictures that you did not want.							
3.6.1	Phone Call	1	2	3	4	5	6	7
3.6.2	Text Message	1	2	3	4	5	6	7
3.6.3	Instant Messenger	1	2	3	4	5	6	7
3.6.4	Social Networking Site	1	2	3	4	5	6	7
3.6.5	Picture Message	1	2	3	4	5	6	7
3.6.6	Video Chat	1	2	3	4	5	6	7
3.6.7	Email	1	2	3	4	5	6	7
3.6.8	Chatroom	1	2	3	4	5	6	7
3.6.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.7	Been sent sexual or inappropriate messages/pictures etc that you did not want.							
3.7.1	Phone Call	1	2	3	4	5	6	7
3.7.2	Text Message	1	2	3	4	5	6	7
3.7.3	Instant Messenger	1	2	3	4	5	6	7
3.7.4	Social Networking Site	1	2	3	4	5	6	7
3.7.5	Picture Message	1	2	3	4	5	6	7
3.7.6	Video Chat	1	2	3	4	5	6	7
3.7.7	Email	1	2	3	4	5	6	7
3.7.8	Chatroom	1	2	3	4	5	6	7
3.7.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.8	Checked your messages, contact histories or friend lists/networks.							
3.8.1	Phone Call	1	2	3	4	5	6	7
3.8.2	Text Message	1	2	3	4	5	6	7
3.8.3	Instant Messenger	1	2	3	4	5	6	7
3.8.4	Social Networking Site	1	2	3	4	5	6	7
3.8.5	Picture Message	1	2	3	4	5	6	7
3.8.6	Video Chat	1	2	3	4	5	6	7
3.8.7	Email	1	2	3	4	5	6	7
3.8.8	Chatroom	1	2	3	4	5	6	7
3.8.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.9	Demanded your passwords to check messages, contact histories or friend lists/networks.							
3.9.1	Phone Call	1	2	3	4	5	6	7
3.9.2	Text Message	1	2	3	4	5	6	7
3.9.3	Instant Messenger	1	2	3	4	5	6	7
3.9.4	Social Networking Site	1	2	3	4	5	6	7
3.9.5	Picture Message	1	2	3	4	5	6	7
3.9.6	Video Chat	1	2	3	4	5	6	7
3.9.7	Email	1	2	3	4	5	6	7
3.9.8	Chatroom	1	2	3	4	5	6	7
3.9.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.10	Deleted or removed contacts or friends or ex-partners.							
3.10.1	Phone Call	1	2	3	4	5	6	7
3.10.2	Text Message	1	2	3	4	5	6	7
3.10.3	Instant Messenger	1	2	3	4	5	6	7
3.10.4	Social Networking Site	1	2	3	4	5	6	7
3.10.5	Picture Message	1	2	3	4	5	6	7
3.10.6	Video Chat	1	2	3	4	5	6	7
3.10.7	Email	1	2	3	4	5	6	7
3.10.8	Chatroom	1	2	3	4	5	6	7
3.10.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.11	Made you feel afraid not to respond to a call, text, message etc.							
3.11.1	Phone Call	1	2	3	4	5	6	7
3.11.2	Text Message	1	2	3	4	5	6	7
3.11.3	Instant Messenger	1	2	3	4	5	6	7
3.11.4	Social Networking Site	1	2	3	4	5	6	7
3.11.5	Picture Message	1	2	3	4	5	6	7
3.11.6	Video Chat	1	2	3	4	5	6	7
3.11.7	Email	1	2	3	4	5	6	7
3.11.8	Chatroom	1	2	3	4	5	6	7
3.11.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
3.12	Prevented you from using electronic communication technology or from talking to others.							
3.12.1	Phone Call	1	2	3	4	5	6	7
3.12.2	Text Message	1	2	3	4	5	6	7
3.12.3	Instant Messenger	1	2	3	4	5	6	7
3.12.4	Social Networking Site	1	2	3	4	5	6	7
3.12.5	Picture Message	1	2	3	4	5	6	7
3.12.6	Video Chat	1	2	3	4	5	6	7
3.12.7	Email	1	2	3	4	5	6	7
3.12.8	Chatroom	1	2	3	4	5	6	7
3.12.9	Website/Blog	1	2	3	4	5	6	7

Q	Section 4: Technology-Assisted Dating Abuse Used							
	Please use the following KEY to rate for each technology media, how often you have USED the following behaviours towards your current or a recent girlfriend or boyfriend in the LAST 12 MONTHS. Please answer as accurately and honestly as possible							
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.1	Insulting, mean or hurtful personal comments e.g. called them names, put downs etc.							
4.1.1	Phone Call	1	2	3	4	5	6	7
4.1.2	Text Message	1	2	3	4	5	6	7
4.1.3	Instant Messenger	1	2	3	4	5	6	7
4.1.4	Social Networking Site	1	2	3	4	5	6	7
4.1.5	Picture Message	1	2	3	4	5	6	7
4.1.6	Video Chat	1	2	3	4	5	6	7
4.1.7	Email	1	2	3	4	5	6	7
4.1.8	Chatroom	1	2	3	4	5	6	7
4.1.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.2	Comments or acts that were intended to embarrass, humiliate or shame them e.g. spreading rumours							
4.2.1	Phone Call	1	2	3	4	5	6	7
4.2.2	Text Message	1	2	3	4	5	6	7
4.2.3	Instant Messenger	1	2	3	4	5	6	7
4.2.4	Social Networking Site	1	2	3	4	5	6	7
4.2.5	Picture Message	1	2	3	4	5	6	7
4.2.6	Video Chat	1	2	3	4	5	6	7
4.2.7	Email	1	2	3	4	5	6	7
4.2.8	Chatroom	1	2	3	4	5	6	7
4.2.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.3	Shared or distributed private or personal information/images/videos							
4.3.1	Phone Call	1	2	3	4	5	6	7
4.3.2	Text Message	1	2	3	4	5	6	7
4.3.3	Instant Messenger	1	2	3	4	5	6	7
4.3.4	Social Networking Site	1	2	3	4	5	6	7
4.3.5	Picture Message	1	2	3	4	5	6	7
4.3.6	Video Chat	1	2	3	4	5	6	7
4.3.7	Email	1	2	3	4	5	6	7
4.3.8	Chatroom	1	2	3	4	5	6	7
4.3.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.4	Threatening comments or behaviours that were intended to threaten harm, intimidate or bully them.							
4.4.1	Phone Call	1	2	3	4	5	6	7
4.4.2	Text Message	1	2	3	4	5	6	7
4.4.3	Instant Messenger	1	2	3	4	5	6	7
4.4.4	Social Networking Site	1	2	3	4	5	6	7
4.4.5	Picture Message	1	2	3	4	5	6	7
4.4.6	Video Chat	1	2	3	4	5	6	7
4.4.7	Email	1	2	3	4	5	6	7
4.4.8	Chatroom	1	2	3	4	5	6	7
4.4.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.5	Contacted them to check on them and ask them where they are, what they are doing and who they are with.							
4.5.1	Phone Call	1	2	3	4	5	6	7
4.5.2	Text Message	1	2	3	4	5	6	7
4.5.3	Instant Messenger	1	2	3	4	5	6	7
4.5.4	Social Networking Site	1	2	3	4	5	6	7
4.5.5	Picture Message	1	2	3	4	5	6	7
4.5.6	Video Chat	1	2	3	4	5	6	7
4.5.7	Email	1	2	3	4	5	6	7
4.5.8	Chatroom	1	2	3	4	5	6	7
4.5.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.6	Asked or pressured them to engage in sexual acts or to send messages/pictures that they did not want.							
4.6.1	Phone Call	1	2	3	4	5	6	7
4.6.2	Text Message	1	2	3	4	5	6	7
4.6.3	Instant Messenger	1	2	3	4	5	6	7
4.6.4	Social Networking Site	1	2	3	4	5	6	7
4.6.5	Picture Message	1	2	3	4	5	6	7
4.6.6	Video Chat	1	2	3	4	5	6	7
4.6.7	Email	1	2	3	4	5	6	7
4.6.8	Chatroom	1	2	3	4	5	6	7
4.6.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.7	Sent sexual or inappropriate messages/pictures etc that they did not want							
4.7.1	Phone Call	1	2	3	4	5	6	7
4.7.2	Text Message	1	2	3	4	5	6	7
4.7.3	Instant Messenger	1	2	3	4	5	6	7
4.7.4	Social Networking Site	1	2	3	4	5	6	7
4.7.5	Picture Message	1	2	3	4	5	6	7
4.7.6	Video Chat	1	2	3	4	5	6	7
4.7.7	Email	1	2	3	4	5	6	7
4.7.8	Chatroom	1	2	3	4	5	6	7
4.7.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.8	Checked their messages, contact histories or friend lists/networks.							
4.8.1	Phone Call	1	2	3	4	5	6	7
4.8.2	Text Message	1	2	3	4	5	6	7
4.8.3	Instant Messenger	1	2	3	4	5	6	7
4.8.4	Social Networking Site	1	2	3	4	5	6	7
4.8.5	Picture Message	1	2	3	4	5	6	7
4.8.6	Video Chat	1	2	3	4	5	6	7
4.8.7	Email	1	2	3	4	5	6	7
4.8.8	Chatroom	1	2	3	4	5	6	7
4.8.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.9	Demanded their passwords to check messages, contact histories or friend lists/networks.							
4.9.1	Phone Call	1	2	3	4	5	6	7
4.9.2	Text Message	1	2	3	4	5	6	7
4.9.3	Instant Messenger	1	2	3	4	5	6	7
4.9.4	Social Networking Site	1	2	3	4	5	6	7
4.9.5	Picture Message	1	2	3	4	5	6	7
4.9.6	Video Chat	1	2	3	4	5	6	7
4.9.7	Email	1	2	3	4	5	6	7
4.9.8	Chatroom	1	2	3	4	5	6	7
4.9.9	Website/Blog	1	2	3	4	5	6	7

	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.10	Deleted or removed their contacts or friends or ex-partners.							
4.10.1	Phone Call	1	2	3	4	5	6	7
4.10.2	Text Message	1	2	3	4	5	6	7
4.10.3	Instant Messenger	1	2	3	4	5	6	7
4.10.4	Social Networking Site	1	2	3	4	5	6	7
4.10.5	Picture Message	1	2	3	4	5	6	7
4.10.6	Video Chat	1	2	3	4	5	6	7
4.10.7	Email	1	2	3	4	5	6	7
4.10.8	Chatroom	1	2	3	4	5	6	7
4.10.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.11	Made them feel afraid not to respond to a call, text, message etc.							
4.11.1	Phone Call	1	2	3	4	5	6	7
4.11.2	Text Message	1	2	3	4	5	6	7
4.11.3	Instant Messenger	1	2	3	4	5	6	7
4.11.4	Social Networking Site	1	2	3	4	5	6	7
4.11.5	Picture Message	1	2	3	4	5	6	7
4.11.6	Video Chat	1	2	3	4	5	6	7
4.11.7	Email	1	2	3	4	5	6	7
4.11.8	Chatroom	1	2	3	4	5	6	7
4.11.9	Website/Blog	1	2	3	4	5	6	7
	KEY	1	2	3	4	5	6	7
		Never	At least once	Monthly	Fort-nightly	Weekly	Daily	Hourly
4.12	Prevented them from using electronic communication technology or from talking to others.							
4.12.1	Phone Call	1	2	3	4	5	6	7
4.12.2	Text Message	1	2	3	4	5	6	7
4.12.3	Instant Messenger	1	2	3	4	5	6	7
4.12.4	Social Networking Site	1	2	3	4	5	6	7
4.12.5	Picture Message	1	2	3	4	5	6	7
4.12.6	Video Chat	1	2	3	4	5	6	7
4.12.7	Email	1	2	3	4	5	6	7
4.12.8	Chatroom	1	2	3	4	5	6	7
4.12.9	Website/Blog	1	2	3	4	5	6	7

Q		Section 5: Peer Awareness of Technology-Assisted Dating Abuse				
5.1	Please circle how many friends or people you know who have told you that they have EVER RECEIVED the following behaviours from a girlfriend or boyfriend.					
5.1.1	Cyberbullying, cyber harassment or controlling behaviour via electronic communication technology	0	1	2	3	3+
5.1.2	Sexually aggressive, bullying or harassment behaviours via electronic communication technology	0	1	2	3	3+
5.1.3	Physically aggressive behaviour in person	0	1	2	3	3+
5.1.4	Psychologically/emotionally abusive, harassment or controlling behaviours in person	0	1	2	3	3+
5.1.5	Sexually aggressive, bullying or harassment behaviours in person	0	1	2	3	3+
5.2	Please circle how many friends or people you know who have told you that they are CURRENTLY RECEIVING the following behaviours from a girlfriend or boyfriend.					
5.2.1	Cyberbullying, cyber harassment or controlling behaviour via electronic communication technology	0	1	2	3	3+
5.2.2	Sexually aggressive, bullying or harassment behaviours via electronic communication technology	0	1	2	3	3+
5.2.3	Physically aggressive behaviour in person	0	1	2	3	3+
5.2.4	Psychologically/emotionally abusive, harassment or controlling behaviours in person	0	1	2	3	3+
5.2.5	Sexually aggressive, bullying or harassment behaviours in person	0	1	2	3	3+
5.3	Please rate how many friends or people you know who have told you that they have EVER DONE the following behaviours to a girlfriend or boyfriend.					
5.3.1	Cyberbullying, cyber harassment or controlling behaviour via electronic communication technology	0	1	2	3	3+
5.3.2	Sexually aggressive, bullying or harassment behaviours via electronic communication technology	0	1	2	3	3+
5.3.3	Physically aggressive behaviour in person	0	1	2	3	3+
5.3.4	Psychologically/emotionally abusive, harassment or controlling behaviours in person	0	1	2	3	3+
5.3.5	Sexually aggressive, bullying or harassment behaviours in person	0	1	2	3	3+
5.4	Please rate how many friends or people you know who have told you that they are CURRENTLY DOING the following behaviours to a girlfriend or boyfriend.					
5.4.1	Cyberbullying, cyber harassment or controlling behaviour via electronic communication technology	0	1	2	3	3+
5.4.2	Sexually aggressive, bullying or harassment behaviours via electronic communication	0	1	2	3	3+

	technology					
5.4.3	Physically aggressive behaviour in person	0	1	2	3	3+
5.4.4	Psychologically/emotionally abusive, harassment or controlling behaviours in person	0	1	2	3	3+
5.4.5	Sexually aggressive, bullying or harassment behaviours in person	0	1	2	3	3+

PLEASE READ BEFORE CONTINUING...

If you have **NEVER** experienced or used any of the abusive behaviours from/towards a girl/boyfriend in Sections 3 and 4, you do not need to answer any further questions in this questionnaire.

If you **HAVE** indicated that you have experienced or used any of the abusive behaviours from/towards a girl/boyfriend in Sections 3 and 4, **please continue answering the questions in Sections 6, 7, and 8 as fully as possible.**

Q	Section 6: Impact of Technology-Assisted Dating Abuse						
	KEY	1	2	3	4	5	99
		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Not Applicable
6.1	Please rate whether RECEIVING electronic abusive behaviours from your current or former girlfriend or boyfriend had an impact on you.						
6.1.1	It had no impact on me at all	1	2	3	4	5	99
6.1.2	I was sad or hurt emotionally	1	2	3	4	5	99
6.1.3	I was distressed	1	2	3	4	5	99
6.1.4	I was angry	1	2	3	4	5	99
6.1.5	I was embarrassed	1	2	3	4	5	99
6.1.6	I was anxious	1	2	3	4	5	99
6.1.7	I felt guilty	1	2	3	4	5	99
6.1.8	I was scared or afraid	1	2	3	4	5	99
6.1.9	I cried	1	2	3	4	5	99
6.1.10	I missed school because of it (at least once)	1	2	3	4	5	99
6.1.11	It had an good impact on my relationship	1	2	3	4	5	99
6.1.12	It had an bad impact on my relationship	1	2	3	4	5	99
	KEY	1	2	3	4	5	99
		Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Not Applicable
6.2	Please rate whether you SENDING/USING electronic abusive behaviours towards your current or former girlfriend or boyfriend had an impact on you						
6.2.1	It had no impact on me at all	1	2	3	4	5	99
6.2.2	I was sad or hurt emotionally	1	2	3	4	5	99
6.2.3	I was distressed	1	2	3	4	5	99
6.2.4	I was angry	1	2	3	4	5	99
6.2.5	I was embarrassed	1	2	3	4	5	99
6.2.6	I was anxious	1	2	3	4	5	99
6.2.7	I felt guilty	1	2	3	4	5	99
6.2.8	I was scared or afraid	1	2	3	4	5	99
6.2.9	I cried	1	2	3	4	5	99
6.2.10	I missed school because of it (at least once)	1	2	3	4	5	99
6.2.11	It had an good impact on my relationship	1	2	3	4	5	99
6.2.12	It had an bad impact on my relationship	1	2	3	4	5	99

Q	Section 7: Response to Technology-Assisted Dating Abuse							
	KEY	1 Never	2 Once	3 Sometimes	4 Always	99 Not Applicable		
7.1	Please rate what your response was to RECEIVING electronic abusive behaviours by your current/recent girlfriend or boyfriend.							
7.1.1	I used a mobile phone (e.g. call or text) to retaliate aggressively	1	2	3	4	99		
7.1.2	I used an online communication tool (e.g. social networking site, email) to retaliate aggressively	1	2	3	4	99		
7.1.3	I used a mobile phone (e.g. call or text) to discuss the incident with my girl/boyfriend non-aggressively	1	2	3	4	99		
7.1.4	I used an online communication tool (e.g. social networking site, email) to discuss the incident non-aggressively	1	2	3	4	99		
7.1.5	I took mobile action (e.g. blocked the person, changed number)	1	2	3	4	99		
7.1.6	I took online action (e.g. blocked the person, left the site, deleted account)	1	2	3	4	99		
7.1.7	I waited until saw my girl/boyfriend in person to confront them non-aggressively and discuss the incident	1	2	3	4	99		
7.1.8	I waited until saw my girl/boyfriend in person to confront them aggressively	1	2	3	4	99		
7.1.9	I told someone e.g. friend, sibling, parent, teacher, police, other adult	1	2	3	4	99		
7.1.10	I did not respond / no action taken	1	2	3	4	99		
7.1.11	If you told someone about your experience, who were you most likely to tell?	N/a	Friend	Sibling	Parent	Teacher	Police	Other
	KEY	1	2	3	4	99		
		Never	Once	Sometimes	Always	Not Applicable		
7.2	Please rate what your current/recent girlfriend or boyfriend's response was to you SENDING/USING electronic abusive behaviours.							
7.2.1	They used a mobile phone (e.g. call or text) to retaliate aggressively	1	2	3	4	99		
7.2.2	They used an online communication tool (e.g. social networking site, email) to retaliate aggressively	1	2	3	4	99		
7.2.3	They used a mobile phone (e.g. call or text) to discuss the incident with me non-aggressively	1	2	3	4	99		
7.2.4	They used an online communication tool (e.g. social networking site, email) to discuss the incident me non-aggressively	1	2	3	4	99		
7.2.5	They took mobile action (e.g. blocked me, changed their number)	1	2	3	4	99		
7.2.6	They took online action (e.g. blocked me, left the site, deleted account)	1	2	3	4	99		
7.2.7	They waited until they saw me in person to confront me non-aggressively and discuss the incident	1	2	3	4	99		
7.2.8	They waited until they saw me in person to confront me aggressively	1	2	3	4	99		
7.2.9	They told someone about my actions e.g. friend, sibling, parent, teacher, police, other adult	1	2	3	4	99		

7.2.10	They did not respond / no action was taken	1	2	3	4	99		
7.2.11	If they told someone about your behaviour, who did they tell?	N/a	Friend	Sibling	Parent	Teacher	Police	Other

Q	Section 8: Result of Technology-Assisted Dating Abuse							
	KEY	1 Never	2 Once	3 Sometimes	4 Always	99 Not Applicable		
8.1	Please rate the outcome of the electronic abusive behaviours you RECEIVED from your current/recent girlfriend or boyfriend.							
8.1.1	The situation was resolved			1	2	3	4	99
8.1.2	We made up or smoothed it over			1	2	3	4	99
8.1.3	We had a verbal argument face-to-face			1	2	3	4	99
8.1.4	We had a physical fight face-to-face			1	2	3	4	99
8.1.5	We broke up			1	2	3	4	99
8.1.6	It made our relationship better			1	2	3	4	99
8.2	Please rate the outcome of the electronic abusive behaviours you SENT/USED to your current/recent girlfriend or boyfriend.							
8.2.1	The situation was resolved			1	2	3	4	99
8.2.2	We made up or smoothed it over			1	2	3	4	99
8.2.3	We had a verbal argument face-to-face			1	2	3	4	99
8.2.4	We had a physical fight face-to-face			1	2	3	4	99
8.2.5	We broke up			1	2	3	4	99
8.2.6	It made our relationship better			1	2	3	4	99

Thank you for completing *this* survey

Please continue to Questionnaires 2, 3 and 4

Appendix 11: Physical dating violence questionnaire

Participant Reference Code: _____

If you have had a girlfriend or boyfriend in the last 12 months, please fill in this questionnaire. If not, Thank you for completing this questionnaire pack.

Victimisation/Perpetration in Dating Relationships Scale

How many times has your current or recent dating partner (e.g. girlfriend or boyfriend) done the following things to you in the last 12 months?

Only include it when the dating partner did it to you first. In other words, don't count it if they did it to you in self-defence

	10 or more times 3	4 to 9 times 2	1 to 3 times 1	Never 0
1. Scratched me	3	2	1	0
2. Slapped me	3	2	1	0
3. Physically twisted my arm	3	2	1	0
4. Slammed me or held me against a wall	3	2	1	0
5. Kicked me	3	2	1	0
6. Bent my fingers	3	2	1	0
7. Bit me	3	2	1	0
8. Tried to choke me	3	2	1	0
9. Pushed, grabbed, or shoved me	3	2	1	0
10. Threw something at me that hit me	3	2	1	0
11. Burned me	3	2	1	0
12. Hit me with a fist	3	2	1	0
13. Hit me with something hard besides a fist	3	2	1	0
14. Beat me up	3	2	1	0
15. Assaulted me with a weapon	3	2	1	0

How many times **have you** ever done the following things **to a current or recent dating partner** (e.g. girlfriend or boyfriend) in the last 12 months?

Only include when you did it to him/her first. In other words, **don't count it if you did it in self-defence**

	10 or more times 3	4 to 9 times 2	1 to 3 times 1	Never 0
1. Scratched them	3	2	1	0
2. Slapped them	3	2	1	0
3. Physically twisted their arm	3	2	1	0
4. Slammed them or held them against a wall	3	2	1	0
5. Kicked them	3	2	1	0
6. Bent their fingers	3	2	1	0
7. Bit them	3	2	1	0
8. Tried to choke them	3	2	1	0
9. Pushed, grabbed, or shoved them	3	2	1	0
10. Threw something at them that hit them	3	2	1	0
11. Burned them	3	2	1	0
12. Hit them with a fist	3	2	1	0
13. Hit them with something hard besides a fist	3	2	1	0
14. Beat them up	3	2	1	0
15. Assaulted them with a weapon	3	2	1	0

Appendix 12: Controlling dating violence questionnaire

Participant Reference Code: _____

If you have had a girlfriend or boyfriend in the last 12 months, please fill in this questionnaire. If not, Thank you for completing this questionnaire pack.

Controlling Behaviors Scale

*Have you used any of the behaviours on the list below **towards** a current or recent dating partner (e.g. girlfriend or boyfriend) in the last 12 months?*

*Only include when you did it to him/her first. In other words, **don't count it if you did it in self-defence***

	Very Often 4	Often 3	Sometimes 2	Hardly ever 1	Never 0
1. Did you make or carry out threats to do something to harm your partner?	4	3	2	1	0
2. Did you threaten to leave your partner?	4	3	2	1	0
3. Did you encourage your partner to do illegal things he/she would not otherwise have done?	4	3	2	1	0
4. Did you use looks, actions, and/or gestures to change your partner's behavior?	4	3	2	1	0
5. Did you smash property when annoyed/angry?	4	3	2	1	0
6. Did you put your partner down when you felt they were getting "too big for their boots?"	4	3	2	1	0
7. Did you try to humiliate your partner in front of others?	4	3	2	1	0
8. Did you tell your partner that he/she was going crazy?	4	3	2	1	0
9. Did you call your partner unpleasant names?	4	3	2	1	0
10. Did you restrict the amount of time your partner spent with friends and/or family?	4	3	2	1	0
11. Did you limit your partner's activities outside the relationship?	4	3	2	1	0
12. Did you feel suspicious and jealous of your partner?	4	3	2	1	0

Has a current or recent dating partner (e.g. girlfriend or boyfriend) **used** any of the behaviours on the list below **towards you** in the alst 12 months?

Only include it when the dating partner did it to you first. In other words, **don't count it if they did it to you in self-defence**

	Very Often 4	Often 3	Sometimes 2	Hardly ever 1	Never 0
1. Did your partner make or carry out threats to do something to harm you?	4	3	2	1	0
2. Did your partner threaten to leave you?	4	3	2	1	0
3. Did your partner encourage you to do illegal things you would not otherwise have done?	4	3	2	1	0
4. Did your partner use looks, actions, and/or gestures to change your behavior?	4	3	2	1	0
5. Did your partner smash property when annoyed/angry?	4	3	2	1	0
6. Did your partner put you down when they felt you were getting "too big for your boots?"	4	3	2	1	0
7. Did your partner try to humiliate you in front of others?	4	3	2	1	0
8. Did your partner tell you that you were going crazy?	4	3	2	1	0
9. Did your partner call you unpleasant names?	4	3	2	1	0
10. Did your partner restrict the amount of time you spent with friends and/or family?	4	3	2	1	0
11. Did your partner limit your activities outside the relationship?	4	3	2	1	0
12. Did your partner feel suspicious and jealous of you?	4	3	2	1	0

Appendix 13: Attachment questionnaire

Participant Reference Code: _____

The Experiences in Close Relationships — Relationship Structures Questionnaire

The statements below concern how you feel in emotionally intimate relationships (e.g. your mother, father, dating partner (i.e. girlfriend or boyfriend), and friend). I am interested in how you *generally* experience relationships, not just in what is happening in a current relationship.

Respond to each statement by circling the number to indicate how much you agree or disagree with the statement for each person (Mother, Father, Girlfriend or Boyfriend, Friend).

		1	2	3	4	5	6	7
KEY		Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
A	Mother (or mother figure)							
1.1	I usually discuss my problems and concerns with this person.	1	2	3	<u>4</u>	5	6	7
1.2	I talk things over with this person.	1	2	3	<u>4</u>	5	6	7
1.3	It helps to turn to this person in times of need.	1	2	3	<u>4</u>	5	6	7
1.4	I find it easy to depend on this person.	1	2	3	<u>4</u>	5	6	7
1.5	I prefer not to show this person how I feel deep down.	1	2	3	<u>4</u>	5	6	7
1.6	I don't feel comfortable opening up to this person.	1	2	3	<u>4</u>	5	6	7
1.7	I'm afraid this person may abandon me.	1	2	3	<u>4</u>	5	6	7
1.8	I worry that this person won't care about me as much as I care about him or her.	1	2	3	<u>4</u>	5	6	7
1.9	I often worry that this person doesn't really care for me.	1	2	3	<u>4</u>	5	6	7

B	Father (or father figure)							
2.1	I usually discuss my problems and concerns with this person.	1	2	3	<u>4</u>	5	6	7
2.2	I talk things over with this person.	1	2	3	<u>4</u>	5	6	7
2.3	It helps to turn to this person in times of need.	1	2	3	<u>4</u>	5	6	7
2.4	I find it easy to depend on this person.	1	2	3	<u>4</u>	5	6	7
2.5	I prefer not to show this person how I feel deep down.	1	2	3	<u>4</u>	5	6	7
2.6	I don't feel comfortable opening up to this person.	1	2	3	<u>4</u>	5	6	7
2.7	I'm afraid this person may abandon me.	1	2	3	<u>4</u>	5	6	7
2.8	I worry that this person won't care about me as much as I care about him or her.	1	2	3	<u>4</u>	5	6	7
2.9	I often worry that this person doesn't really care for me.	1	2	3	<u>4</u>	5	6	7
C	Current or most Recent Dating Partner (Girlfriend or Boyfriend)							
3.1	I usually discuss my problems and concerns with this person.	1	2	3	<u>4</u>	5	6	7
3.2	I talk things over with this person.	1	2	3	<u>4</u>	5	6	7
3.3	It helps to turn to this person in times of need.	1	2	3	<u>4</u>	5	6	7
3.4	I find it easy to depend on this person.	1	2	3	<u>4</u>	5	6	7
3.5	I prefer not to show this person how I feel deep down.	1	2	3	<u>4</u>	5	6	7
3.6	I don't feel comfortable opening up to this person.	1	2	3	<u>4</u>	5	6	7
3.7	I'm afraid this person may abandon me.	1	2	3	<u>4</u>	5	6	7
3.8	I worry that this person won't care about me as much as I care about him or her.	1	2	3	<u>4</u>	5	6	7
3.9	I often worry that this person doesn't really care for me.	1	2	3	<u>4</u>	5	6	7

D	Friend							
4.1	I usually discuss my problems and concerns with this person.	1	2	3	<u>4</u>	5	6	7
4.2	I talk things over with this person.	1	2	3	<u>4</u>	5	6	7
4.3	It helps to turn to this person in times of need.	1	2	3	<u>4</u>	5	6	7
4.4	I find it easy to depend on this person.	1	2	3	<u>4</u>	5	6	7
4.5	I prefer not to show this person how I feel deep down.	1	2	3	<u>4</u>	5	6	7
4.6	I don't feel comfortable opening up to this person.	1	2	3	<u>4</u>	5	6	7
4.7	I'm afraid this person may abandon me.	1	2	3	<u>4</u>	5	6	7
4.8	I worry that this person won't care about me as much as I care about him or her.	1	2	3	<u>4</u>	5	6	7
4.9	I often worry that this person doesn't really care for me.	1	2	3	<u>4</u>	5	6	7

Appendix 14: Ethics for main study

**REGISTRY RESEARCH UNIT
ETHICS REVIEW FEEDBACK FORM**

(Review feedback should be completed within 10 working days)

Name of applicant: Karlie Stonard

Faculty/School/Department: [Faculty of Health and Life Sciences] Psychology & Behavioural Sciences

Research project title: The Nature Prevalence and Impact of Technology Assisted Adolescent Dating Violence

Comments by the reviewer

Evaluation of the ethics of the proposal:	
Evaluation of the participant information sheet and consent form:	
Recommendation: (Please indicate as appropriate and advise on any conditions. If there any conditions, the applicant will be required to resubmit his/her application and this will be sent to the same reviewer).	
<input type="checkbox"/>	Approved - no conditions attached
<input type="checkbox"/>	Approved with minor conditions (no need to re-submit)
<input type="checkbox"/>	Conditional upon the following – please use additional sheets if necessary (please re-submit application)
<input type="checkbox"/>	Rejected for the following reason(s) – please use other side if necessary
<input checked="" type="checkbox"/>	Not required

Name of reviewer: Anonymous

Date: 01/07/2014

Medium to High Risk Project

[Project Details](#) [Comments \(8\)](#) [Downloads](#) [Approval Steps](#)

Step	Status	Actioned by	Actioned on
Project	Submitted	Karlie Stonard	Thu, 09 Jan 2014 08:59 AM
Supervisor	Not required	Erica Bowen	
Referrer	Not required	Elaine Cartmill	
Reviewer	Not required	Reviewer	
Finalizer	Approved	Elaine Cartmill	Tue, 01 Jul 2014 02:55 PM

5 Steps

Appendix 15: Factor analysis of the friend ADVA/TAADVA questionnaire

Friend TA/ADVA Factor Analysis

Introduction

Although friend ADVA has been identified as a risk factor for ADVA (e.g. Arriaga and Foshee 2004, Foshee et al. 2013, Foshee et al. 2001, Foshee et al. 2004 and Foshee, Reyes, and Ennett 2010), less is known about the potential role of friend ADVA/TAADVA in TAADVA. A factor analysis was conducted on the friend ADVA/TAADVA victimisation and instigation instrument (see Chapter 3; Appendix 15) in order to examine whether the variables could be reduced into related factors in preparation for the analysis reported on in Chapter 5.

Method

Participants

Participants included 469 12-18 year olds recruited via secondary schools, youth clubs, and through snowballing methods.

Measure

The 20-item friend historical and current ADVA/TAADVA victimisation and instigation measure was used (see Chapter 3). This asked respondents how many friends had experienced or used ADVA/TAADVA on a scale from 0-3+ for five types of abuse (non-sexual and sexual TAADVA and physical, psychological and sexual ADVA).

Procedure

The measure was administered as part of the broader self-report questionnaire (see Chapter 3) in a school, youth club, or respondents' home setting.

Analytical strategy

Factor analysis using oblimin rotation was used to examine whether the 20-item friend ADVA/TAADVA measure was loaded by any particular factors in order to examine whether these items could be reduced in preparation for the logistic regression analysis used in Chapter 5.

Results

The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis, $KMO = .91$ (Kaiser 1974, cited in Field 2009). An initial analysis was run to obtain eigenvalues for each factor in the data. Scree plots were used to determine the number of factors to extract and the main breakpoint occurred just prior to the second, so two factors were extracted. These two factors had eigenvalues over Kaiser's criterion of <1 and in combination explained 66% of the variance. Factor loadings above .3 were used to interpret the factor structure. Table A33.1 shows the pattern matrix of the factor loadings. The items that cluster on the same factors suggest that factor 1 represents friend instigation of all the ADVA/TAADVA behaviours (historical and current). Factor 2 represents friend victimisation of historical ADVA/TAADVA.

This factor analysis revealed some interesting findings; the friend historical and current experiences of instigation of all five types of abusive behaviour (non-sexual and sexual TAADVA, and physical, psychological, and sexual ADVA) were uniquely loaded on one factor (friend instigation experience). Friend historical experience of victimisation of all five types of abusive behaviour was also loaded on a second factor. The friend current experience of victimisation items of all five types of abusive behaviour however, was correlated on both of these victimisation and instigation factors (.571), suggesting that current friend victims were also likely to be historical victims and historical/current instigators of TAADVA.

Table A15.1

Pattern matrix summary of the exploratory factor analysis for the friend TA/ADVA victimisation and instigation measure ($n = 460-463$)

Item	Factor loadings	
	1	2
Friend current instigation of physical ADVA	.992	
Friend current instigation of psychological ADVA	.961	
Friend current instigation of sexual TAADVA	.948	
Friend current instigation of non-sexual TAADVA	.894	
Friend current instigation of sexual ADVA	.881	
Friend historical instigation of psychological ADVA	.812	
Friend historical instigation of sexual ADVA	.756	
Friend historical instigation of physical ADVA	.753	
Friend historical instigation of sexual TAADVA	.659	
Friend historical instigation of non-sexual TAADVA	.545	
Friend current victimisation of physical ADVA	.522	.328
Friend current victimisation of sexual TAADVA	.513	.435
Friend current victimisation of psychological ADVA	.468	.453
Friend historical victimisation of sexual TAADVA		.846
Friend historical victimisation of sexual ADVA		.839
Friend historical victimisation of non-sexual TAADVA		.807
Friend historical victimisation of psychological ADVA		.767
Friend historical victimisation of physical ADVA		.654
Friend current victimisation of non-sexual TAADVA	.330	.505
Friend current victimisation of sexual ADVA	.368	.493
Eigenvalues	11.24	56.18
% of variance	1.98	9.89

Note: 1 - Friend instigation of TA/ADVA; 2 - Friend historical victimisation of TA/ADVA

Discussion

Including these two factors as predictors (dependent variables) within the subsequent analysis was considered, however this would mean that the individual type of violence experienced by a respondents' friends and whether this was historical abuse or current abuse would not be identifiable.

Therefore, it was decided to combine the non-sexual and sexual TAADVA friend experiences for each 'historical', 'current', and 'victimisation', and 'instigation', creating four new variables for the logistic regression model. This could not be done for the other three behaviour types (physical, psychological, and sexual friend ADVA) as this would result in a need for restrictive corrections for multiple analyses as a result of the number of predictor variables. Nevertheless, this results from the factor analysis reveal some interesting findings: for example, this suggests respondents who report having friends who are currently victims of ADVA/TAADVA were also likely to report having friends who were historical/current instigators of ADVA/TAADVA and (i.e. these items were correlated above .40).

Appendix 16: Dating experience questions

Dating Experience Questions 10-12

Time since most recent relationship if not currently in one

The majority of adolescent who were not currently in a relationship had fairly recent experiences (i.e. generally within the last six months) in which to recall their relationships for the survey (Table A16.1). A Pearson chi-square test revealed that there was not a significant relationship between gender and the time since adolescents' current or most recent relationship ($\chi^2(4, 271) = 2.21$, $p > .05$, Cramer's $V = .09$).

Table A16.1

Time since most recent dating partner ($n = 271$)

	Total % (n)	Male % (n)	Female % (n)
Not applicable	29.9 (81)	31.6 (37)	28.6 (44)
Less than 2 months	25.1 (68)	23.1 (27)	26.6 (41)
2-6 months	31.4 (85)	29.1 (34)	33.1 (51)
6-12 months	13.7 (37)	16.2 (19)	11.7 (18)

Frequency of contact with current or most recent dating partner outside of school

The majority of adolescents reported that they saw their current or most recent dating partner several times a week (Table A16.2). A Pearson chi-square test revealed that there was not a significant relationship between gender and how often adolescents' see their current or most recent partner ($\chi^2(5, 272) = 1.19$, $p > .05$, Cramer's $V = .07$).

Table A.16.2Frequency of offline contact with current or most recent dating partner ($n = 272$)

	Total % (n)	Male % (n)	Female % (n)
Less than once a month	6.3 (17)	7.7 (9)	5.2 (8)
Once a month	5.5 (15)	6 (7)	5.2 (8)
Once a fortnight	4.8 (13)	4.3 (5)	5.2 (8)
Once a week	10.7 (29)	9.4 (11)	11.6 (18)
Several times a week	43.4 (118)	43.6 (51)	43.2 (67)
Every day	29.4 (80)	29.1 (34)	29.7 (46)

Time spent with dating partner when have contact

The most common response for the time spent with partner question reported by adolescents in the total sample was more than four hours, followed by 2-3 hours (Table A16.3). A Pearson chi-square test revealed that there was not a significant relationship between gender and time spent with adolescents' current or most recent partner ($\chi^2 (4, 271) = 6.79, p > .05$, Cramer's $V = .16$).

Table A16.3Time spent with current or most recent dating partner ($n = 271$)

	Total	Male	Female
0-1 hours	6.6 (18)	6.8 (8)	6.5 (10)
1-2 hours	18.5 (50)	23.7 (28)	14.4 (22)
2-3 hours	25.5 (69)	19.5 (23)	30.1 (46)
3-4 hours	17 (46)	15.3 (18)	18.3 (28)
More than 4 hours	32.5 (88)	34.7 (41)	30.7 (47)

Appendix 17: Descriptive frequencies of TAADVA behaviours and ECTs

Descriptive frequencies of TAADVA behaviours and ECTs

Table A17.1
TAADVA Victimization (*n* = 277)

	Total % (<i>n</i>)							Male % (<i>n</i>)							Female % (<i>n</i>)							
	N	O	M	F	W	D	H	N	O	M	F	W	D	H	N	O	M	F	W	D	H	
Insults																						
Phone call	74.4 (206)	14.1 (39)	1.8 (5)	2.9 (8)	3.2 (9)	2.5 (7)	1.1 (3)	78.3 (94)	10 (12)	1.7 (2)	2.5 (3)	4.2 (5)	1.7 (2)	1.7 (2)	71.3 (112)	17.2 (27)	1.9 (3)	3.2 (5)	2.5 (4)	3.2 (5)	3.2 (5)	.6 (1)
Text message	62.1 (172)	18.4 (51)	4.3 (12)	2.2 (6)	5.4 (15)	2.9 (8)	4.7 (13)	66.7 (80)	15 (18)	5 (6)	1.7 (2)	4.2 (5)	2.5 (3)	5 (6)	58.6 (92)	21 (33)	3.8 (6)	2.5 (4)	6.4 (10)	3.2 (5)	4.5 (7)	
Instant messenger	71.1 (197)	13 (36)	2.9 (8)	3.2 (9)	4 (11)	2.2 (6)	3.6 (10)	72.5 (87)	10.8 (13)	3.3 (4)	3.3 (4)	3.3 (4)	3.3 (4)	3.3 (4)	70.1 (110)	14.6 (23)	2.5 (4)	3.2 (5)	4.5 (7)	1.3 (2)	3.8 (6)	
Social networking site	69 (191)	14.4 (40)	4.3 (12)	2.5 (7)	4 (11)	2.2 (6)	3.6 (10)	72.5 (87)	11.7 (14)	5.8 (7)	1.7 (2)	1.7 (2)	3.3 (4)	3.3 (4)	66.2 (104)	16.6 (26)	3.2 (5)	3.2 (5)	5.7 (9)	1.3 (2)	3.8 (6)	
Picture message	84.1 (233)	6.1 (17)	2.2 (6)	2.2 (6)	1.4 (4)	1.8 (5)	2.2 (6)	82.5 (99)	9.2 (11)	1.7 (2)	.8 (1)	1.7 (2)	1.7 (2)	2.5 (3)	85.4 (134)	3.8 (6)	2.5 (4)	3.2 (5)	1.3 (2)	1.9 (3)	1.9 (3)	
Video chat	85.9 (238)	5.1 (14)	1.8 (5)	1.8 (5)	2.5 (7)	1.8 (5)	1.1 (3)	79.2 (95)	6.7 (8)	3.3 (4)	4.2 (5)	4.2 (5)	.8 (1)	1.7 (2)	91.1 (143)	3.8 (6)	.6 (1)	0 (0)	1.3 (2)	2.5 (4)	.6 (1)	
Email	94.2 (261)	2.9 (8)	.4 (1)	.7 (2)	.7 (2)	0 (0)	1.1 (3)	90 (108)	4.2 (5)	.8 (1)	1.7 (2)	.8 (1)	0 (0)	2.5 (3)	97.5 (153)	1.9 (3)	0 (0)	0 (0)	.6 (1)	0 (0)	0 (0)	
Chatroom	92.1 (255)	4.3 (12)	.4 (1)	1.1 (3)	0 (0)	1.1 (3)	1.1 (3)	90.8 (109)	4.2 (5)	0 (0)	1.7 (2)	0 (0)	.8 (1)	2.5 (3)	93 (146)	4.5 (7)	.6 (1)	.6 (1)	0 (0)	1.3 (2)	0 (0)	
Website/Blog	91.3 (253)	4 (11)	.7 (2)	.4 (1)	.4 (1)	1.4 (4)	1.8 (5)	85.8 (103)	6.7 (8)	.8 (1)	.8 (1)	.8 (1)	1.7 (2)	3.3 (4)	95.5 (150)	1.9 (3)	.6 (1)	0 (0)	0 (0)	1.3 (2)	.6 (1)	
Humiliation																						
Phone call	83.4 (231)	9 (25)	1.4 (4)	1.4 (4)	1.8 (5)	1.1 (3)	1.8 (5)	85 (102)	9.2 (11)	1.7 (2)	1.7 (2)	.8 (1)	0 (0)	1.7 (2)	82.2 (129)	8.9 (14)	1.3 (2)	1.3 (2)	2.5 (4)	1.9 (3)	1.9 (3)	
Text message	77.6 (215)	10.5 (29)	4.3 (12)	2.5 (7)	2.5 (7)	.4 (1)	2.2 (6)	90 (96)	7.5 (9)	5.8 (7)	1.7 (2)	2.5 (3)	0 (0)	2.5 (3)	75.8 (119)	12.7 (20)	3.2 (5)	3.2 (5)	2.5 (4)	.6 (1)	1.9 (3)	

Instant messenger	82.7	7.6	3.2	2.9	1.4	1.1	1.1.	82.5	8.3	3.3	3.3	.8	.8	.8	82.8	7	3.2	2.5	1.9	1.3	1.3
	(229)	(21)	(9)	(8)	(4)	(3)	(3)	(99)	(10)	(4)	(4)	(1)	(1)	(1)	(130)	(11)	(5)	(4)	(3)	(2)	(2)
Social networking site	77.3	12.3	2.5	3.6	1.8	1.8	.7	78.3	10.8	3.3	4.2	1.7	1.7	0	76.4	13.4	1.9	3.2	1.9	1.9	1.3
	(214)	(34)	(7)	(10)	(5)	(5)	(2)	(94)	(13)	(4)	(5)	(2)	(2)	(0)	(120)	(21)	(3)	(5)	(3)	(3)	(2)
Picture message	87	5.8	1.4	2.5	1.4	1.4	.4	87.5	5.8	1.7	2.5	1.7	.8	0	86.6	5.7	1.3	2.5	1.3	1.9	.6
	(241)	(16)	(4)	(7)	(4)	(4)	(1)	(105)	(7)	(2)	(3)	(2)	(1)	(0)	(136)	(9)	(2)	(4)	(2)	(3)	(1)
Video chat	91	5.1	1.1	1.4	0	1.1	.4	88.3	5.8	2.5	1.7	0	1.7	0	93	4.5	0	1.3	0	.6	.6
	(252)	(14)	(3)	(4)	(0)	(3)	(1)	(106)	(7)	(3)	(2)	(0)	(2)	(0)	(146)	(7)	(0)	(2)	(0)	(1)	(1)
Email	93.5	4	.4	1.1	.4	.7	0	90.8	5	.8	1.7	.8	.8	0	95.5	3.2	0	.6	0	.6	0
	(259)	(11)	(1)	(3)	(1)	(2)	(0)	(109)	(6)	(1)	(2)	(1)	(1)	(0)	(150)	(5)	(0)	(1)	(0)	(1)	(0)
Chatroom	92.1	4.7	.4	1.1	.7	.7	.4	91.7	4.2	.8	1.7	.8	.8	0	92.4	5.1	0	.6	.6	.6	.6
	(255)	(13)	(1)	(3)	(2)	(2)	(1)	(110)	(5)	(1)	(2)	(1)	(1)	(0)	(145)	(8)	(0)	(1)	(1)	(1)	(1)
Website/Blog	91.7	5.1	0	.7	1.1	.7	.7	88.3	7.5	0	.8	2.5	.8	0	94.3	3.2	0	.6	0	.6	1.3
	(254)	(14)	(0)	(2)	(3)	(2)	(2)	(106)	(9)	(0)	(1)	(3)	(1)	(0)	(136)	(5)	(0)	(1)	(0)	(1)	(2)
Shared /distribute^a																					
Phone call	87	6.5	2.5	1.1	1.1	1.1	.7	87.4	3.4	3.4	1.7	1.7	1.7	.8	86.6	8.9	1.9	.6	.6	.6	.6
	(240)	(18)	(7)	(3)	(3)	(3)	(2)	(104)	(4)	(4)	(2)	(2)	(2)	(1)	(136)	(14)	(3)	(1)	(1)	(1)	(1)
Text message	77.9	11.2	3.3	3.6	1.8	1.1	1.1	80.7	7.6	3.4	4.2	.8	1.7	1.7	75.8	14	3.2	3.2	2.5	.6	.6
	(215)	(31)	(9)	(10)	(5)	(3)	(3)	(96)	(9)	(4)	(5)	(1)	(2)	(2)	(119)	(22)	(5)	(5)	(4)	(1)	(1)
Instant messenger	85.1	7.2	1.4	1.4	1.4	2.2	1.1	84.9	6.7	1.7	1.7	0	4.2	.8	85.4	7.6	1.3	1.3	2.5	.6	1.3
	(235)	(20)	(4)	(4)	(4)	(6)	(3)	(101)	(8)	(2)	(2)	(0)	(5)	(1)	(134)	(12)	(2)	(2)	(4)	(1)	(2)
Social networking site	84.8	6.2	1.8	2.2	2.5	1.1	1.4	84.9	5	2.5	2.5	1.7	1.7	1.7	84.7	7	1.3	1.9	3.2	.6	1.3
	(234)	(17)	(5)	(6)	(7)	(3)	(4)	(101)	(6)	(3)	(3)	(2)	(2)	(2)	(133)	(11)	(2)	(3)	(5)	(1)	(2)
Picture message	87	5.8	1.4	1.8	2.2	.7	1.1	85.7	6.7	2.5	1.7	1.7	.8	.8	87.9	5.1	.6	1.9	2.5	.6	1.3
	(240)	(26)	(4)	(5)	(6)	(2)	(3)	(102)	(8)	(3)	(2)	(2)	(1)	(1)	(138)	(8)	(1)	(3)	(4)	(1)	(2)
Video chat	93.1	1.8	.7	1.8	.7	1.1	.7	89.9	2.5	.8	3.4	.8	1.7	.8	95.5	1.3	.6	.6	.6	.6	.6
	(257)	(5)	(2)	(5)	(2)	(3)	(2)	(107)	(3)	(1)	(4)	(1)	(2)	(1)	(150)	(2)	(1)	(1)	(1)	(1)	(1)
Email	93.5	3.6	.4	.7	.7	.7	.4	89.9	5.9	.8	0	.8	1.7	.8	96.2	1.9	0	1.3	.6	0	0
	(258)	(10)	(1)	(2)	(2)	(2)	(1)	(107)	(7)	(1)	(0)	(1)	(2)	(1)	(151)	(3)	(0)	(2)	(1)	(0)	(0)
Chatroom	94.6	1.4	.7	1.1	1.1	0	1.1	92.4	1.7	.8	.8	1.7	0	2.5	96.2	1.3	.6	1.3	.6	0	0
	(261)	(4)	(2)	(3)	(3)	(0)	(3)	(110)	(2)	(1)	(1)	(2)	(0)	(3)	(151)	(2)	(1)	(2)	(1)	(0)	(0)
Website/Blog	93.8	1.4	1.4	1.1	.7	.4	1.1	92.4	.8	1.7	1.7	.8	.8	1.7	94.9	1.9	1.3	.6	.6	0	.6
	(259)	(4)	(4)	(3)	(2)	(1)	(3)	(110)	(1)	(2)	(2)	(1)	(1)	(2)	(149)	(3)	(2)	(1)	(1)	(0)	(1)
Threat																					

Phone call ^a	88	6.9	1.1	.7	1.1	1.8	.4	90.8	4.2	1.7	.8	.8	1.7	0	86	8.9	.6	.6	1.3	1.9	.6
	(243)	(19)	(3)	(2)	(3)	(5)	(1)	(108)	(5)	(2)	(1)	(1)	(2)	(0)	(135)	(14)	(1)	(1)	(2)	(3)	(1)
Text message ^b	83.6	9.1	1.8	1.5	2.5	.4	1.1	88.1	4.2	2.5	2.5	1.7	0	.8	80.3	12.7	1.3	.6	3.2	.6	1.3
	(230)	(25)	(5)	(4)	(7)	(1)	(3)	(104)	(5)	(3)	(3)	(2)	(0)	(1)	(126)	(20)	(2)	(1)	(5)	(1)	(2)
Instant messenger ^b	88.7	6.5	1.1	.7	1.1	1.1	.7	89.8	5.9	1.7	.8	.8	0	.8	87.9	7	.6	.6	1.3	1.9	.6
	(244)	(18)	(3)	(2)	(3)	(3)	(2)	(106)	(7)	(2)	(1)	(1)	(0)	(1)	(138)	(11)	(1)	(1)	(2)	(3)	(1)
Social networking site ^b	86.5	7.6	1.8	.7	1.1	.7	1.5	89.8	4.2	3.4	.8	0	.8	.8	84.1	10.2	.6	.6	1.9	.6	1.9
	(238)	(21)	(5)	(2)	(3)	(2)	(4)	(106)	(5)	(4)	(1)	(0)	(1)	(1)	(132)	(16)	(1)	(1)	(3)	(1)	(3)
Picture message ^b	93.5	3.3	.4	.7	.7	.4	1.1	91.5	4.2	.8	1.7	.8	0	.8	94.9	2.5	0	0	.6	.6	1.3
	(257)	(9)	(1)	(2)	(2)	(1)	(3)	(108)	(5)	(1)	(2)	(1)	(0)	(1)	(149)	(4)	(0)	(0)	(1)	(1)	(2)
Video chat ^b	94.5	3.3	1.1	0	0	.4	.7	91.5	5.1	2.5	0	0	0	.8	96.8	1.9	0	0	0	.6	.6
	(260)	(9)	(3)	(0)	(0)	(1)	(2)	(108)	(6)	(3)	(0)	(0)	(0)	(1)	(152)	(3)	(0)	(0)	(0)	(1)	(1)
Email ^b	94.9	2.9	.7	.4	0	.7	.4	92.4	4.2	.8	.8	0	.8	.8	96.8	1.9	.6	0	0	.6	0
	(261)	(8)	(2)	(1)	(0)	(2)	(1)	(109)	(5)	(1)	(1)	(0)	(1)	(1)	(152)	(3)	(1)	(0)	(0)	(1)	(0)
Chatroom ^b	95.3	2.5	.4	.4	0	.7	.7	93.2	3.4	.8	.8	0	.8	.8	96.8	1.9	0	0	0	.6	.6
	(262)	(7)	(1)	(1)	(0)	(2)	(2)	(110)	(4)	(1)	(1)	(0)	(1)	(1)	(152)	(3)	(0)	(0)	(0)	(1)	(1)
Website/Blog ^b	94.9	2.5	1.1	.4	0	.4	.7	93.2	2.5	2.5	.8	0	0	.8	96.2	2.5	0	0	0	.6	.6
	(261)	(7)	(3)	(1)	(0)	(1)	(2)	(110)	(3)	(3)	(1)	(0)	(0)	(1)	(151)	(4)	(0)	(0)	(0)	(1)	(1)
Checked up on^a																					
Phone call	58.7	15.9	4.3	5.1	7.6	5.1	3.3	55.5	13.4	6.7	7.6	7.6	3.4	5.9	61.1	17.8	2.5	3.2	7.6	6.4	1.3
	(162)	(44)	(12)	(14)	(21)	(14)	(9)	(66)	(16)	(8)	(9)	(9)	(4)	(7)	(96)	(28)	(4)	(5)	(12)	(10)	(2)
Text message	52.2	21.4	4.7	4.3	6.2	8.3	2.9	50.4	17.6	6.7	5	9.2	6.9	5	53.5	24.2	3.2	3.8	3.8	10.2	1.3
	(144)	(59)	(13)	(12)	(17)	(23)	(8)	(60)	(21)	(8)	(6)	(11)	(7)	(6)	(84)	(38)	(5)	(6)	(6)	(16)	(2)
Instant messenger	68.1	14.5	3.6	3.6	3.3	5.1	1.8	63.9	14.3	3.4	6.7	4.2	4.2	3.4	71.3	14.6	3.8	1.3	2.5	5.7	.6
	(188)	(40)	(10)	(10)	(9)	(14)	(5)	(76)	(17)	(4)	(8)	(5)	(5)	(4)	(112)	(26)	(6)	(2)	(4)	(9)	(1)
Social networking site	75.4	9.1	3.3	2.9	2.2	5.1	2.2	73.1	8.4	5	4.2	2.5	2.5	4.2	77.1	9.6	1.9	1.9	1.9	7	.6
	(208)	(25)	(9)	(8)	(6)	(14)	(6)	(87)	(10)	(6)	(5)	(3)	(3)	(5)	(121)	(15)	(3)	(3)	(3)	(11)	(1)
Picture message	85.1	4.3	2.5	2.2	1.1	2.9	1.8	77.3	5	5	5	2.5	.8	4.2	91.1	3.8	.6	0	0	4.5	0
	(235)	(12)	(7)	(6)	(3)	(8)	(5)	(92)	(6)	(6)	(6)	(3)	(1)	(5)	(143)	(6)	(1)	(0)	(0)	(7)	(0)
Video chat	88.4	4.7	1.8	1.8	.7	1.4	1.1	80.7	8.4	2.5	4.2	1.7	0	2.5	94.3	1.9	1.3	0	0	2.5	0
	(244)	(13)	(5)	(5)	(2)	(4)	(3)	(96)	(10)	(3)	(5)	(2)	(0)	(3)	(148)	(3)	(2)	(0)	(0)	(4)	(0)
Email	92	3.3	.7	1.1	1.1	1.1	.7	88.2	4.2	1.7	2.5	1.7	0	1.7	94.9	2.5	0	0	.6	1.9	0
	(254)	(9)	(2)	(3)	(3)	(3)	(2)	(105)	(5)	(2)	(3)	(2)	(0)	(2)	(149)	(4)	(0)	(0)	(1)	(3)	(0)
Chatroom	91.7	2.5	1.1	1.4	.7	1.8	.7	87.4	3.4	1.7	3.4	1.7	.8	1.7	94.9	1.9	.6	0	0	2.5	0

	(253)	(7)	(3)	(4)	(2)	(5)	(2)	(104)	(4)	(2)	(4)	(2)	(1)	(2)	(149)	(3)	(1)	(0)	(0)	(4)	(0)
Website/Blog	91.3	2.9	1.4	1.8	.4	1.1	1.1	86.6	3.4	3.4	4.2	.8	0	1.7	94.9	2.5	0	0	0	1.9	.6
	(252)	(8)	(4)	(5)	(1)	(3)	(3)	(103)	(4)	(4)	(5)	(1)	(0)	(2)	(149)	(4)	(0)	(0)	(0)	(3)	(1)
Been asked for unwanted sexting^a																					
Phone call	92.4	4.3	1.4	.7	.4	.4	.4	93.3	3.4	.8	.8	.8	0	.8	91.7	5.1	1.9	.6	0	.6	0
	(255)	(12)	(4)	(2)	(1)	(1)	(1)	(111)	(4)	(1)	(1)	(1)	(0)	(1)	(144)	(8)	(3)	(1)	(0)	(1)	(0)
Text message	84.8	9.1	1.8	1.1	1.1	1.1	1.1	89.1	5.9	1.7	.8	1.7	0	.8	81.5	11.5	1.9	1.3	.6	1.9	1.3
	(234)	(25)	(5)	(3)	(3)	(3)	(3)	(106)	(7)	(2)	(1)	(2)	(0)	(1)	(128)	(18)	(3)	(2)	(1)	(3)	(2)
Instant messenger	90.6	5.8	1.1	.7	.4	1.1	.4	92.4	4.2	.8	.8	.8	0	.8	89.2	7	1.3	.6	0	1.9	0
	(250)	(16)	(3)	(2)	(1)	(3)	(1)	(110)	(5)	(1)	(1)	(1)	(0)	(1)	(140)	(11)	(2)	(1)	(0)	(3)	(0)
Social networking site	91.3	4.3	1.1	1.4	.4	1.1	.4	93.3	4.2	0	1.7	0	0	.8	89.8	4.5	1.9	1.3	.6	1.9	0
	(252)	(12)	(3)	(4)	(1)	(3)	(1)	(111)	(5)	(0)	(2)	(0)	(0)	(1)	(141)	(7)	(3)	(2)	(1)	(3)	(0)
Picture message	91.3	4.3	.4	1.4	.7	1.1	.7	93.3	4.2	0	1.7	0	0	.8	89.8	4.5	.6	1.3	1.3	1.9	.6
	(252)	(12)	(1)	(4)	(2)	(3)	(2)	(111)	(5)	(0)	(2)	(0)	(0)	(1)	(141)	(7)	(1)	(2)	(2)	(3)	(1)
Video chat	96	2.2	.4	0	.4	.4	.7	95	2.5	.8	0	.8	0	.8	96.8	1.9	0	0	0	.6	.6
	(265)	(6)	(1)	(0)	(1)	(1)	(2)	(113)	(3)	(1)	(0)	(1)	(0)	(1)	(152)	(3)	(0)	(0)	(0)	(1)	(1)
Email	97.5	1.1	.4	.4	.4	0	.4	95	2.5	.8	.8	0	0	.8	99.4	0	0	0	.6	0	0
	(269)	(3)	(1)	(1)	(1)	(0)	(1)	(113)	(3)	(1)	(1)	(0)	(0)	(1)	(156)	(0)	(0)	(0)	(1)	(0)	(0)
Chatroom	97.5	1.1	0	.4	.4	.4	.4	95	2.5	0	.8	.8	0	.8	99.4	0	0	0	0	.6	0
	(269)	(3)	(0)	(1)	(1)	(1)	(1)	(113)	(3)	(0)	(1)	(1)	(0)	(1)	(156)	(0)	(0)	(0)	(0)	(1)	(0)
Website/Blog	97.5	1.4	0	.4	0	.4	.4	95.8	2.5	0	.8	0	0	.8	98.7	.6	0	0	0	.6	0
	(269)	(4)	(0)	(1)	(0)	(1)	(1)	(114)	(3)	(0)	(1)	(0)	(0)	(1)	(155)	(1)	(0)	(0)	(0)	(1)	(0)
Been sent unwanted sexting^a																					
Phone call	94.9	2.9	.4	.4	.7	.7	0	95.8	1.7	.8	.8	.8	0	0	94.3	3.8	0	0	.6	1.3	0
	(262)	(8)	(1)	(1)	(2)	(2)	(0)	(114)	(2)	(1)	(1)	(1)	(0)	(0)	(148)	(6)	(0)	(0)	(1)	(2)	(0)
Text message	87	8.7	1.4	1.1	.7	.4	.7	88.2	6.7	2.5	2.5	0	0	0	86	10.2	.6	0	1.3	.6	1.3
	(240)	(24)	(4)	(3)	(2)	(1)	(2)	(105)	(8)	(3)	(3)	(0)	(0)	(0)	(135)	(16)	(1)	(0)	(2)	(1)	(2)
Instant messenger	89.1	8	1.1	.4	.7	.4	.4	91.6	5	2.5	.8	0	0	0	87.3	10.2	0	0	1.3	.6	.6
	(246)	(22)	(3)	(1)	(2)	(1)	(1)	(109)	(6)	(3)	(1)	(0)	(0)	(0)	(137)	(16)	(0)	(0)	(2)	(1)	(1)
Social networking site	86.2	10.5	1.8	0	.7	.7	0	89.9	5.9	3.4	0	0	.8	0	83.4	14	.6	0	1.3	.6	0
	(238)	(29)	(5)	(0)	(2)	(2)	(0)	(107)	(7)	(4)	(0)	(0)	(1)	(0)	(131)	(22)	(1)	(0)	(2)	(1)	(0)
Picture message	87.3	9.8	.4	.4	1.1	1.1	0	89.9	7.6	.8	.8	.8	0	0	85.4	11.5	0	0	1.3	1.9	0

	(241)	(28)	(1)	(1)	(3)	(3)	(0)	(107)	(9)	(1)	(1)	(1)	(0)	(0)	(134)	(18)	(0)	(0)	(2)	(3)	(0)
Video chat	94.2	4	.7	.4	0	.7	0	93.3	4.2	1.7	.8	0	0	0	94.9	3.8	0	0	0	1.3	0
	(260)	(11)	(2)	(1)	(0)	(2)	(0)	(111)	(5)	(2)	(1)	(0)	(0)	(0)	(149)	(6)	(0)	(0)	(0)	(2)	(0)
Email	96.4	1.8	.4	.4	1.1	0	0	94.1	2.5	.8	.8	1.7	0	0	98.1	1.3	0	0	.6	0	0
	(266)	(5)	(1)	(1)	(3)	(0)	(0)	(112)	(3)	(1)	(1)	(2)	(0)	(0)	(154)	(2)	(0)	(0)	(1)	(0)	(0)
Chatroom	96.4	1.4	1.4	0	.4	.4	0	95	.8	3.4	0	.8	0	0	97.5	1.9	0	0	0	.6	0
	(266)	(4)	(4)	(0)	(1)	(1)	(0)	(113)	(1)	(4)	(0)	(1)	(0)	(0)	(153)	(3)	(0)	(0)	(0)	(1)	(1)
Website/Blog	96.7	1.4	.7	.4	.4	.4	0	94.1	2.5	1.7	.8	.8	0	0	98.7	.6	0	0	0	.6	0
	(267)	(4)	(2)	(1)	(1)	(1)	(0)	(112)	(3)	(2)	(1)	(1)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(1)	(0)
Checked messages																					
Phone call ^b	78.9	9.5	2.5	2.5	1.1	2.5	2.9	72	12.7	.8	2.5	.8	5.1	5.9	84.1	7	3.8	2.5	1.3	.6	.6
	(217)	(26)	(7)	(7)	(3)	(7)	(8)	(85)	(15)	(1)	(3)	(1)	(6)	(7)	(132)	(11)	(6)	(4)	(2)	(1)	(1)
Text message ^b	72.4	14.2	2.9	2.2	2.2	3.6	2.5	68.6	12.7	2.5	2.5	2.5	6.8	4.2	75.2	15.3	3.2	1.9	1.9	1.3	1.3
	(199)	(39)	(8)	(6)	(6)	(10)	(7)	(81)	(15)	(3)	(3)	(3)	(8)	(5)	(118)	(24)	(5)	(3)	(3)	(2)	(2)
Instant messenger ^c	78.1	11.3	2.2	1.8	1.8	2.6	2.2	70.9	12.8	1.7	3.4	1.7	5.1	4.3	83.4	10.2	2.5	.6	1.9	.6	.6
	(214)	(31)	(6)	(5)	(5)	(7)	(6)	(83)	(15)	(2)	(4)	(2)	(6)	(5)	(131)	(16)	(4)	(1)	(3)	(1)	(1)
Social networking site ^b	75.6	10.9	1.8	2.5	3.3	3.6	2.2	70.3	12.7	1.7	2.5	1.7	6.8	4.2	79.6	9.6	1.9	2.5	4.5	1.3	.6
	(208)	(30)	(5)	(7)	(9)	(10)	(6)	(83)	(15)	(2)	(3)	(2)	(8)	(5)	(125)	(15)	(3)	(4)	(7)	(2)	(1)
Picture message ^b	84.7	6.2	1.8	1.5	1.5	2.2	2.2	78.8	8.5	.8	2.5	1.7	3.4	4.2	89.2	4.5	2.5	.6	1.3	1.3	.6
	(233)	(17)	(5)	(4)	(4)	(6)	(6)	(93)	(10)	(1)	(3)	(2)	(4)	(5)	(140)	(7)	(4)	(1)	(2)	(2)	(1)
Video chat ^b	88.7	4.4	1.8	1.1	.4	1.8	1.8	82.2	7.6	.8	1.7	.8	3.4	3.4	93.6	1.9	2.5	.6	0	.6	.6
	(244)	(12)	(5)	(3)	(1)	(5)	(5)	(97)	(9)	(1)	(2)	(1)	(4)	(4)	(147)	(3)	(4)	(1)	(0)	(1)	(1)
Email ^b	88	5.8	1.1	1.5	.7	1.8	1.1	81.4	9.3	0	2.5	.8	3.4	2.5	93	3.2	1.9	.6	.6	.6	.6
	(242)	(16)	(3)	(4)	(2)	(5)	(3)	(96)	(11)	(0)	(3)	(1)	(4)	(3)	(146)	(5)	(3)	(1)	(1)	(1)	(1)
Chatroom ^b	90.2	4	1.1	1.1	.7	1.8	1.1	83.9	6.8	0	1.7	1.7	3.4	2.5	94.9	1.9	1.9	.6	0	.6	0
	(248)	(11)	(3)	(3)	(2)	(5)	(3)	(99)	(8)	(0)	(2)	(2)	(4)	(3)	(149)	(3)	(3)	(1)	(0)	(1)	(0)
Website/Blog ^b	88.7	5.5	1.1	1.1	.4	2.2	1.1	82.2	8.5	0	1.7	.8	4.2	2.5	93.6	3.2	1.9	.6	0	.6	0
	(244)	(15)	(3)	(3)	(1)	(6)	(3)	(97)	(10)	(0)	(2)	(1)	(5)	(3)	(147)	(5)	(3)	(1)	(0)	(1)	(0)
Demanded passwords^b																					
Phone call	92.4	4.7	1.1	.7	.7	.4	0	89.8	4.2	2.5	1.7	1.7	0	0	94.3	5.1	0	0	0	.6	0
	(254)	(13)	(3)	(2)	(2)	(1)	(0)	(106)	(5)	(3)	(2)	(2)	(0)	(0)	(148)	(8)	(0)	(0)	(0)	(1)	(0)
Text message	90.5	6.5	.4	1.1	.7	.4	.4	89	5.9	.8	2.5	1.7	0	0	91.7	7	0	0	0	.6	.6
	(249)	(18)	(1)	(3)	(2)	(1)	(1)	(105)	(7)	(1)	(3)	(2)	(0)	(0)	(144)	(11)	(0)	(0)	(0)	(1)	(1)
Instant messenger	92.7	4.4	1.1	.7	.4	.7	0	90.7	4.2	2.5	1.7	.8	0	0	94.3	4.5	0	0	0	1.3	0

	(255)	(12)	(3)	(2)	(1)	(2)	(0)	(107)	(5)	(3)	(2)	(1)	(0)	(0)	(148)	(7)	(0)	(0)	(0)	(2)	(0)
Social networking site	91.3	6.2	1.1	.7	.4	.4	0	90.7	5.1	1.7	1.7	.8	0	0	91.7	7	.6	0	0	.6	0
	(251)	(17)	(3)	(2)	(1)	(1)	(0)	(107)	(6)	(2)	(2)	(1)	(0)	(0)	(144)	(11)	(1)	(0)	(0)	(1)	(0)
Picture message	95.6	1.8	1.5	.4	.4	.4	0	93.2	1.7	3.4	.8	.8	0	0	97.5	1.9	0	0	0	.6	0
	(263)	(5)	(4)	(1)	(1)	(1)	(0)	(110)	(2)	(4)	(1)	(1)	(0)	(0)	(153)	(3)	(0)	(0)	(0)	(1)	(0)
Video chat	95.6	2.2	.4	.7	.7	.4	0	93.2	3.4	.8	1.7	.8	0	0	97.5	1.3	0	0	.6	.6	0
	(263)	(6)	(1)	(2)	(2)	(1)	(0)	(110)	(4)	(1)	(2)	(1)	(0)	(0)	(153)	(2)	(0)	(0)	(1)	(1)	(0)
Email	95.3	2.5	.4	.7	1.1	0	0	92.4	3.4	.8	1.7	1.7	0	0	97.5	1.9	0	0	.6	0	0
	(262)	(7)	(1)	(2)	(3)	(0)	(0)	(109)	(4)	(1)	(2)	(2)	(0)	(0)	(153)	(3)	(0)	(0)	(1)	(0)	(0)
Chatroom	96	1.8	.4	.4	.4	.7	.4	94.1	1.7	.8	.8	.8	.8	.8	97.5	1.9	0	0	0	.6	0
	(264)	(5)	(1)	(1)	(1)	(2)	(2)	(111)	(2)	(1)	(1)	(1)	(1)	(1)	(153)	(3)	(0)	(0)	(0)	(1)	(0)
Website/Blog	96	1.8	1.1	0	.4	.4	.4	93.2	2.5	2.5	0	.8	0	.8	98.1	1.3	0	0	0	.6	0
	(264)	(5)	(3)	(0)	(1)	(1)	(1)	(110)	(3)	(3)	(0)	(1)	(0)	(1)	(154)	(2)	(0)	(0)	(0)	(1)	(0)
Deleted contacts^c																					
Phone call	83.9	8.8	2.2	1.5	2.2	.7	.7	83.8	6.8	2.6	3.4	1.7	0	1.7	84.1	10.2	1.9	0	2.5	1.3	0
	(230)	(24)	(6)	(4)	(6)	(2)	(2)	(98)	(8)	(3)	(4)	(2)	(0)	(2)	(132)	(16)	(3)	(0)	(4)	(2)	(0)
Text message	81.4	11.3	2.2	1.5	1.8	1.1	.7	82.1	8.5	2.6	2.6	1.7	.9	1.7	80.9	13.4	1.9	.6	1.9	1.3	0
	(223)	(31)	(6)	(4)	(5)	(3)	(2)	(96)	(10)	(3)	(3)	(2)	(1)	(2)	(127)	(21)	(3)	(1)	(3)	(2)	(0)
Instant messenger	85.4	8	2.9	.7	1.1	1.1	.7	82.1	8.5	4.3	1.7	.9	.9	1.7	87.9	7.6	1.9	0	1.3	1.3	0
	(234)	(22)	(8)	(2)	(3)	(3)	(2)	(96)	(10)	(5)	(2)	(1)	(1)	(2)	(138)	(12)	(3)	(0)	(2)	(2)	(0)
Social networking site	82.5	9.5	2.6	1.5	2.6	.7	.7	80.3	7.7	3.4	3.4	2.6	.9	1.7	84.1	10.8	1.9	0	2.5	.6	0
	(226)	(26)	(7)	(4)	(7)	(2)	(2)	(94)	(9)	(4)	(4)	(3)	(1)	(2)	(132)	(17)	(3)	(0)	(4)	(1)	(0)
Picture message	89.8	5.1	1.8	1.5	1.1	0	.7	87.2	5.1	1.7	3.4	.9	0	1.7	91.7	5.1	1.9	0	1.3	0	0
	(246)	(14)	(5)	(4)	(3)	(0)	(2)	(102)	(6)	(2)	(4)	(1)	(0)	(2)	(144)	(8)	(3)	(0)	(2)	(0)	(0)
Video chat	92	3.3	2.2	1.5	.4	0	.7	88	3.4	3.4	3.4	0	0	1.7	94.9	3.2	1.3	0	.6	0	0
	(252)	(9)	(6)	(4)	(1)	(0)	(2)	(103)	(4)	(4)	(4)	(0)	(0)	(2)	(149)	(5)	(2)	(0)	(1)	(0)	(0)
Email	91.6	3.6	1.5	1.5	1.1	0	.7	88.9	3.4	1.7	3.4	.9	0	1.7	93.6	3.8	1.3	0	1.3	0	0
	(251)	(10)	(4)	(4)	(3)	(0)	(2)	(104)	(4)	(2)	(4)	(1)	(0)	(2)	(147)	(6)	(2)	(0)	(2)	(0)	(0)
Chatroom	92.7	2.9	2.2	1.1	.4	0	.7	88.9	3.4	3.4	2.6	0	0	1.7	95.5	2.5	1.3	0	.6	0	0
	(254)	(8)	(6)	(3)	(1)	(0)	(2)	(104)	(4)	(4)	(3)	(0)	(0)	(2)	(150)	(4)	(2)	(0)	(1)	(0)	(0)
Website/Blog	92.3	2.9	1.5	1.5	.7	.4	.7	88.9	3.4	1.7	3.4	.9	0	1.7	94.9	2.5	1.3	0	.6	.6	0
	(253)	(8)	(4)	(4)	(2)	(1)	(1)	(104)	(4)	(2)	(4)	(1)	(0)	(2)	(149)	(4)	(2)	(0)	(1)	(1)	(0)
Afraid to respond^c																					
Phone call	90.5	7.3	.7	.7	.4	.4	0	93.2	5.1	.9	.9	0	0	0	88.5	8.9	.6	.6	.6	.6	0

	(248)	(20)	(2)	(2)	(1)	(1)	(0)	(109)	(6)	(1)	(1)	(0)	(0)	(0)	(139)	(14)	(1)	(1)	(1)	(1)	(0)
Text message	86.9	10.6	1.1	.4	.7	0	.4	90.6	6	1.7	.9	.9	0	0	84.1	14	.6	0	.6	0	.6
	(238)	(29)	(3)	(1)	(2)	(0)	(1)	(106)	(7)	(2)	(1)	(1)	(0)	(0)	(132)	(22)	(1)	(0)	(1)	(0)	(1)
Instant messenger	92.3	5.5	1.1	.7	0	.4	0	93.2	5.1	.9	.9	0	0	0	91.7	5.7	1.3	.6	0	.6	0
	(253)	(15)	(3)	(2)	(0)	(1)	(0)	(109)	(6)	(1)	(1)	(0)	(0)	(0)	(144)	(9)	(2)	(1)	(0)	(1)	(0)
Social networking site	93.1	4.4	1.1	0	.7	.7	0	94	4.3	.9	0	.9	0	0	92.4	4.5	1.3	0	.6	1.3	0
	(255)	(12)	(3)	(0)	(2)	(2)	(0)	(110)	(5)	(1)	(0)	(1)	(0)	(0)	(145)	(7)	(2)	(0)	(1)	(2)	(0)
Picture message	96.4	2.2	.7	0	0	.7	0	94.9	4.3	.9	0	0	0	0	97.5	.6	.6	0	0	1.3	0
	(264)	(6)	(2)	(0)	(0)	(2)	(0)	(111)	(5)	(1)	(0)	(0)	(0)	(0)	(153)	(1)	(1)	(0)	(0)	(2)	(0)
Video chat	96.7	2.6	0	.4	0	.4	0	95.7	3.4	0	.9	0	0	0	97.5	1.9	0	0	0	.6	0
	(265)	(7)	(0)	(1)	(0)	(1)	(0)	(112)	(4)	(0)	(1)	(0)	(0)	(0)	(153)	(3)	(0)	(0)	(0)	(1)	(0)
Email	97.4	1.8	0	.4	0	.4	0	95.7	3.4	0	.9	0	0	0	98.7	.6	0	0	0	.6	0
	(267)	(5)	(0)	(1)	(0)	(1)	(0)	(112)	(4)	(0)	(1)	(0)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(1)	(0)
Chatroom	97.8	1.5	.4	0	0	.4	0	96.6	2.6	.9	0	0	0	0	98.7	.6	0	0	0	.6	0
	(268)	(4)	(1)	(0)	(0)	(1)	(0)	(113)	(3)	(1)	(0)	(0)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(1)	(0)
Website/Blog	97.4	1.8	0	.4	0	.4	0	96.6	2.6	0	.9	0	0	0	98.1	1.3	0	0	0	.6	0
	(267)	(5)	(0)	(1)	(0)	(1)	(0)	(113)	(3)	(0)	(1)	(0)	(0)	(0)	(154)	(2)	(0)	(0)	(0)	(1)	(0)
Tech prevention^c																					
Phone call	91.2	4.4	1.5	1.1	.7	.4	.7	93.2	3.4	0	1.7	0	0	1.7	89.8	5.1	2.5	.6	1.3	.6	0
	(250)	(12)	(4)	(3)	(2)	(1)	(2)	(109)	(4)	(0)	(2)	(0)	(0)	(2)	(141)	(8)	(4)	(1)	(2)	(1)	(0)
Text message	89.8	5.8	1.1	.7	1.5	0	1.1	92.3	3.4	0	1.7	.9	0	1.7	87.9	7.6	1.9	0	1.9	0	.6
	(246)	(16)	(3)	(2)	(4)	(0)	(3)	(108)	(4)	(0)	(2)	(1)	(0)	(2)	(138)	(12)	(3)	(0)	(3)	(0)	(1)
Instant messenger	92.7	3.3	1.5	1.1	.4	0	1.1	93.2	2.6	.9	1.7	0	0	1.7	92.4	3.8	1.9	.6	.6	0	.6
	(254)	(9)	(4)	(3)	(1)	(0)	(3)	(109)	(3)	(1)	(2)	(0)	(0)	(2)	(145)	(6)	(3)	(1)	(1)	(0)	(1)
Social networking site	91.2	4	1.5	.4	1.8	.4	.7	92.3	1.7	1.7	.9	1.7	0	1.7	90.4	5.7	1.3	0	1.9	.6	0
	(250)	(11)	(4)	(1)	(5)	(1)	(2)	(108)	(2)	(2)	(1)	(2)	(0)	(2)	(142)	(9)	(2)	(0)	(3)	(1)	(0)
Picture message	94.2	1.8	1.5	.4	.7	.7	.7	92.3	2.6	2.6	.9	0	0	1.7	95.5	1.3	.6	0	1.3	1.3	0
	(258)	(5)	(4)	(1)	(2)	(2)	(2)	(108)	(3)	(3)	(1)	(0)	(0)	(2)	(150)	(2)	(1)	(0)	(2)	(2)	(0)
Video chat	95.3	1.5	.7	.7	.4	.7	.7	93.2	1.7	.9	1.7	.9	0	1.7	96.8	1.3	.6	0	0	1.3	0
	(261)	(4)	(2)	(2)	(1)	(2)	(2)	(109)	(2)	(1)	(2)	(1)	(0)	(2)	(152)	(2)	(1)	(0)	(0)	(2)	(0)
Email	95.6	1.8	0	1.1	.4	.4	.7	92.3	2.6	0	2.6	.9	0	1.7	98.1	1.3	0	0	0	.6	0
	(262)	(5)	(0)	(3)	(1)	(1)	(2)	(108)	(3)	(0)	(3)	(1)	(0)	(2)	(154)	(2)	(0)	(0)	(0)	(1)	(0)
Chatroom	96	1.5	1.1	.4	0	.4	.7	93.2	1.7	2.6	.9	0	0	1.7	98.1	1.3	0	0	0	.6	0
	(263)	(4)	(3)	(1)	(0)	(1)	(2)	(109)	(2)	(3)	(1)	(0)	(0)	(2)	(154)	(2)	(0)	(0)	(0)	(1)	(0)

Website/Blog	96	1.8	.4	.4	.4	.4	.7	94	1.7	.9	.9	.9	0	1.7	97.5	1.9	0	0	0	.6	0
	(263)	(5)	(1)	(1)	(1)	(1)	(2)	(110)	(2)	(1)	(1)	(1)	(0)	(2)	(153)	(3)	(0)	(0)	(0)	(1)	(0)

Note: ^a 276 respondents; ^b 275 respondents; ^c 274 respondents

Insulting, mean or hurtful personal comments e.g. called names, putdowns

Based on a total of 277 adolescents (120 male and 157 female), 45% (38% males and 50% females) reported receiving insults, mean or hurtful personal comments from a girlfriend or boyfriend by some form of ECT at least once.

Twenty-six per cent (22% males and 29% females) reported receiving insults, mean or hurtful personal comments from a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 38% (33% males and 41% females) by text message, 29% (27.5% males and 30% females) by instant messenger, 31% (27.5% males and 34% females) by social networking site, 16% (17.5% males and 15% females) by picture message, 14% (21% males and 9% females) by video chat, 6% (10% males and 2.5% females) by email, 8% (9% males and 7% females) by chatroom, and 9% (14% males and 4.5% females) by website or blog.

Comments or acts that were intended to embarrass, humiliate or shame (e.g. spreading rumours)

Based on a total of 277 adolescents (120 male and 157 female), 31% (28% males and 33% females) reported receiving comments or acts that were intended to embarrass, humiliate or shame them (e.g. spreading rumours) from a girlfriend or boyfriend by some form of ECT at least once.

Seventeen per cent (15% males and 8% females) reported receiving comments or acts that were intended to embarrass, humiliate or shame them (e.g. spreading rumours) from a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 22% (10% males and 24% females) by text message, 17% (17.5% males and 17% females) by instant messenger, 23% (22% males and 24% females) by social networking site, 13% (12.5% males and 13% females) by picture message, 9% (12% males and 7% females) by video chat, 6.5% (9% males and 4.5% females) by email, 8% (8% males and 8% females) by chatroom, and 8% (12% males and 6% females) by website or blog.

Shared or distributed private or personal information, images, or videos etc.

Based on a total of 276 adolescents (119 male and 157 female), 28% (25% males and 31% females) reported having their private or personal information, images, or videos etc. shared or distributed by a girlfriend or boyfriend by some form of ECT at least once.

Thirteen per cent (13% males and 13% females) reported having their private or personal information, images, or videos etc. shared or distributed by a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 22% (19% males and 24% females) by text message, 15% (15% males and 15% females) by instant messenger, 15% (15% males and 15% females) by social networking site, 13% (14% males and 12% females) by picture message, 7% (10% males and 4.5% females) by video chat, 6.5% (10% males and 4% females) by email, 5% (8% males and 4% females) by chatroom, and 6% (8% males and 5% females) by website or blog.

Threatening comments or behaviours that were intended to threaten harm, intimidate or bully

Based on a total of 275-276 adolescents (118-119 male and 157 female) as stated in the table summary notes, 20% (14% males and 25% females) reported receiving threatening comments or behaviours that were intended to threaten harm, intimidate or bully them from a girlfriend or boyfriend by some form of ECT at least once.

Twelve per cent (9% males and 14% females) reported threatening comments or behaviours that were intended to threaten harm, intimidate or bully them from a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 16% (12% males and 20% females) by text message, 11% (10% males and 12% females) by instant messenger, 13.5% (10% males and 16% females) by social networking site, 6.5% (8.5% males and 5% females) by picture message, 5.5% (8.5% males and 3% females) by video chat, 5% (8% males and 3% females) by email, 5% (7% males and 3% females) by chatroom, and 5% (7% males and 4% females) by website or blog.

Been contacted to check on and ask where are, what are doing and who are with

Based on a total of 276 adolescents (119 male and 157 female), 56% (54% males and 57% females) reported being contacted by a girlfriend or boyfriend to check on them and ask they where they are, what they are doing and who they are with by some form of ECT at least once.

Forty-one per cent (44.5% males and 39% females) reported being contacted by a girlfriend or boyfriend to check on them and ask they where they are, what they are doing and who they are with at least once or more in the last 12 months by phone call, 48% (50% males and 46.5% females) by text message, 32% (36% males and 29% females) by instant messenger, 25% (27% males and 23%

females) by social networking site, 15% (23% males and 9% females) by picture message, 12% (19% males and 6% females) by video chat, 8% (12% males and 5% females) by email, 8% (13% males and 5% females) by chatroom, and 9% (13% males and 5% females) by website or blog.

Been asked or pressured to engage in unwanted sexual acts or to send messages or pictures

Based on a total of 276 adolescents (119 male and 157 female), 20% (12% males and 25.5% females) reported being asked or pressured to engage in sexual acts or to send messages or pictures that they did not want by a girlfriend or boyfriend by some form of ECT at least once.

Eight per cent (7% males and 8% females) reported being asked or pressured to engage in sexual acts or to send messages or pictures that they did not want by a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 15% (11% males and 18.5% females) by text message, 9% (8% males and 11% females) by instant messenger, 9% (7% males and 10% females) by social networking site, 9% (7% males and 10% females) by picture message, 4% (5% males and 3% females) by video chat, 2.5% (5% males and 1% females) by email, 2.5% (5% males and 1% females) by chatroom, and 2.5% (4% males and 1% females) by website or blog.

Been sent unwanted sexual or inappropriate messages or pictures etc.

Based on a total of 276 adolescents (119 male and 157 female), 21% (16% males and 24% females) reported having been sent unwanted sexual or inappropriate messages or pictures etc. from a girlfriend or boyfriend by some form of ECT at least once.

Five per cent (4% males and 6% females) reported having been sent unwanted sexual or inappropriate messages or pictures etc. from a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 13% (12% males and 14% females) by text message, 11% (8% males and 13% females) by instant messenger, 14% (10% males and 17% females) by social networking site, 13% (10% males and 15% females) by picture message, 6% (7% males and 5% females) by video chat, 4% (6% males and 2% females) by email, 4% (5% males and 2.5% females) by chatroom, and 3% (6% males and 1% females) by website or blog.

Checked messages, contact histories or friend lists, and networks

Based on a total of 274-275 adolescents (117-118 male and 157 female), 31% (35% males and 28% females) reported having their messages, contact histories or friend lists and networks checked by a girlfriend or boyfriend by some form of ECT at least once.

Twenty-one per cent (28% males and 16% females) reported having their messages, contact histories, or friend lists and networks checked by a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 28% (31% males and 25% females) by text message, 22% (29% males and 17% females) by instant messenger, 24% (30% males and 20% females) by social networking site, 15% (21% males and 11% females) by picture message, 11% (18% males and 6% females) by video chat, 12% (19% males and 7% females) by email, 10% (16% males and 5% females) by chatroom, and 11% (18% males and 6% females) by website or blog.

Demanded passwords to check messages, contact histories, or friend lists and networks

Based on a total of 275 adolescents (118 male and 157 female), 13.5% (14% males and 13% females) reported having their passwords demanded to check messages, contact histories or friend lists and networks by a girlfriend or boyfriend by some form of ECT at least once.

Eight per cent (10% males and 6% females) reported having their passwords demanded to check messages, contact histories, or friend lists and networks by a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 9.5% (11% males and 8% females) by text message, 7% (9% males and 6% females) by instant messenger, 9% (9% males and 8% females) by social networking site, 4% (7% males and 2.5% females) by picture message, 4% (7% males and 2.5% females) by video chat, 5% (8% males and 2.5% females) by email, 4% (6% males and 2.5% females) by chatroom, and 4% (7% males and 2% females) by website or blog.

Deleted or removed contacts, friends or ex-partners

Based on a total of 274 adolescents (117 male and 157 female), 21.5% (23% males and 20% females) reported having their contacts, friends, or ex-partners deleted or removed by a girlfriend or boyfriend by some form of ECT at least once.

Sixteen per cent (16% males and 16% females) reported having their contacts, friends, or ex-partners deleted or removed by a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 19% (18% males and 19% females) by text message, 15% (18% males and 12% females)

by instant messenger, 17.5% (20% males and 16% females) by social networking site, 10% (13% males and 8% females) by picture message, 8% (12% males and 5% females) by video chat, 8% (11% males and 6% females) by email, 7% (11% males and 4.5% females) by chatroom, and 8% (11% males and 5% females) by website or blog.

Felt afraid not to respond to a call, text, message etc.

Based on a total of 274 adolescents (117 male and 157 female), 16% (11% males and 19% females) reported having been afraid not to respond to a call, text, message etc. from a girlfriend or boyfriend by some form of ECT at least once.

Nine-point-five per cent (7% males and 11.5% females) reported having been afraid not to respond to a call, text, message etc. from a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 13% (9% males and 16% females) by text message, 8% (7% males and 8% females) by instant messenger, 7% (6% males and 8% females) by social networking site, 4% (5% males and 2.5% females) by picture message, 3% (4% males and 2.5% females) by video chat, 3% (4% males and 1% females) by email, 2% (3% males and 1% females) by chatroom, and 3% (3% males and 2% females) by website or blog.

Been prevented from using electronic communication technology or from talking to others

Based on a total of 274 adolescents (117 male and 157 female), 12% (11% males and 13% females) reported having been prevented from using ECT or from talking to others by a girlfriend or boyfriend by some form of ECT at least once.

Nine per cent (7% males and 10% females) reported having been prevented from using ECT or from talking to others by a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 10% (8% males and 12% females) by text message, 7% (7% males and 8% females) by instant messenger, 9% (8% males and 10% females) by social networking site, 6% (8% males and 4.5% females) by picture message, 5% (7% males and 3% females) by video chat, 4% (8% males and 2% females) by email, 4% (7% males and 2% females) by chatroom, and 4% (6% males and 2.5% females) by website or blog.

Prevalence, gender, and age differences of TAADVA instigation

Table A17.2

TAADVA Instigation (n = 272)

	Total % (n)							Male % (n)							Female % (n)						
	N	O	M	F	W	D	H	N	O	M	F	W	D	H	N	O	M	F	W	D	H
Insults																					
Phone call	86	10.3	1.5	0	.7	1.1	.4	90.4	7	1.7	0	0	0	.9	82.8	12.7	1.3	0	1.3	1.9	0
	(234)	(28)	(4)	(0)	(2)	(3)	(1)	(104)	(8)	(2)	(0)	(0)	(0)	(1)	(130)	(20)	(2)	(0)	(2)	(3)	(0)
Text message	79	15.4	1.8	.7	.7	1.8	.4	82.6	11.3	2.6	1.7	0	1.7	0	76.4	18.5	1.3	0	1.3	1.9	.6
	(215)	(42)	(5)	(2)	(2)	(5)	(1)	(95)	(13)	(3)	(2)	(0)	(2)	(0)	(120)	(29)	(2)	(0)	(2)	(3)	(1)
Instant messenger	85.7	11.4	.7	.4	.4	.7	.7	84.3	13	.9	.9	0	0	.9	86.6	10.2	.6	0	.6	1.3	.6
	(233)	(31)	(2)	(1)	(1)	(2)	(2)	(97)	(15)	(1)	(1)	(0)	(0)	(1)	(136)	(16)	(1)	(0)	(1)	(2)	(1)
Social networking site	85.7	11.4	.7	.4	1.5	0	.4	88.7	8.7	.9	0	1.7	0	0	83.4	13.4	.6	.6	1.3	0	.6
	(233)	(31)	(2)	(1)	(4)	(0)	(1)	(102)	(10)	(1)	(0)	(2)	(0)	(0)	(131)	(21)	(1)	(1)	(2)	(0)	(1)
Picture message	94.9	4	0	.7	0	.4	0	94.8	3.5	0	.9	0	.9	0	94.9	4.5	0	.6	0	0	0
	(258)	(11)	(0)	(2)	(0)	(1)	(0)	(109)	(4)	(0)	(1)	(0)	(1)	(0)	(149)	(7)	(0)	(1)	(0)	(0)	(0)
Video chat	95.6	2.6	.4	.7	.4	0	.4	94.8	2.6	.9	.9	.9	0	0	96.2	2.5	0	.6	0	0	.6
	(260)	(7)	(1)	(2)	(1)	(0)	(1)	(109)	(3)	(1)	(1)	(1)	(0)	(0)	(151)	(4)	(0)	(1)	(0)	(0)	(1)
Email	97.4	1.1	.4	.4	.4	.4	0	95.7	1.7	.9	.9	0	.9	0	98.7	.6	0	0	.6	0	0
	(265)	(3)	(1)	(1)	(1)	(1)	(0)	(110)	(2)	(1)	(1)	(0)	(1)	(0)	(155)	(1)	(0)	(0)	(1)	(0)	(0)
Chatroom	97.4	1.8	.4	0	.4	0	0	95.7	2.6	.9	0	.9	0	0	98.7	1.3	0	0	0	0	0
	(265)	(5)	(1)	(0)	(1)	(0)	(0)	(110)	(3)	(1)	(0)	(1)	(0)	(0)	(155)	(2)	(0)	(0)	(0)	(0)	(0)
Website/Blog	97.1	1.5	.7	0	.4	.4	0	94.8	2.6	1.7	0	0	.9	0	98.7	.6	0	0	.6	0	0
	(264)	(4)	(2)	(0)	(1)	(1)	(0)	(109)	(3)	(2)	(0)	(0)	(1)	(0)	(155)	(1)	(0)	(0)	(1)	(0)	(0)
Humiliation																					
Phone call	92.6	5.5	.4	.4	1.1	0	0	93.9	4.3	0	.9	.9	0	0	91.7	6.4	.6	0	1.3	0	0
	(252)	(15)	(1)	(1)	(3)	(0)	(0)	(108)	(5)	(0)	(1)	(1)	(0)	(0)	(144)	(10)	(1)	(0)	(2)	(0)	(0)
Text message	90.4	8.1	0	.7	.7	0	0	91.3	7	0	1.7	0	0	0	89.8	8.9	0	0	1.3	0	0
	(246)	(22)	(0)	(2)	(2)	(0)	(0)	(105)	(8)	(0)	(2)	(0)	(0)	(0)	(141)	(14)	(0)	(0)	(2)	(0)	(0)
Instant messenger	93	5.9	.4	0	.7	0	0	92.2	6.1	.9	0	.9	0	0	93.6	5.7	0	0	.6	0	0
	(253)	(16)	(1)	(0)	(2)	(0)	(0)	(106)	(7)	(1)	(0)	(1)	(0)	(0)	(147)	(9)	(0)	(0)	(1)	(0)	(0)
Social networking site	92.3	5.5	.4	.4	1.5	0	0	93	4.3	.9	.9	.9	0	0	91.7	6.4	0	0	1.9	0	0
	(251)	(15)	(1)	(1)	(4)	(0)	(0)	(107)	(5)	(1)	(1)	(1)	(0)	(0)	(144)	(10)	(0)	(0)	(3)	(0)	(0)
Picture message	96.3	2.6	.4	.4	.4	0	0	95.7	2.6	.9	.9	0	0	0	96.8	2.5	0	0	.6	0	0
	(262)	(7)	(1)	(1)	(1)	(0)	(0)	(110)	(3)	(1)	(1)	(0)	(0)	(0)	(152)	(4)	(0)	(0)	(1)	(0)	(0)

Video chat	96.7	2.2	.4	.4	.4	0	0	95.7	1.7	.9	.9	.9	0	0	97.5	2.5	0	0	0	0	0
	(263)	(6)	(1)	(1)	(1)	(0)	(0)	(110)	(2)	(1)	(1)	(1)	(0)	(0)	(153)	(4)	(0)	(0)	(0)	(0)	(0)
Email	96.7	1.8	.7	0	.4	.4	0	94.8	2.6	1.7	0	0	.9	0	98.1	1.3	0	0	.6	0	0
	(263)	(5)	(2)	(0)	(1)	(1)	(0)	(109)	(3)	(2)	(0)	(0)	(1)	(0)	(154)	(2)	(0)	(0)	(1)	(0)	(0)
Chatroom	97.1	2.2	.4	.4	0	0	0	95.7	2.6	.9	.9	0	0	0	98.1	1.9	0	0	0	0	0
	(264)	(6)	(1)	(1)	(0)	(0)	(0)	(110)	(3)	(1)	(1)	(0)	(0)	(0)	(154)	(3)	(0)	(0)	(0)	(0)	(0)
Website/Blog	97.1	1.5	.7	0	.7	0	0	95.7	1.7	1.7	0	.9	0	0	98.1	1.3	0	0	.6	0	0
	(264)	(4)	(3)	(0)	(2)	(0)	(0)	(110)	(2)	(2)	(0)	(1)	(0)	(0)	(154)	(2)	(0)	(0)	(1)	(0)	(0)
Shared/distribute^a																					
Phone call	94.1	3.7	1.1	0	1.1	0	0	94.7	1.8	2.6	0	.9	0	0	93.6	5.1	0	0	1.3	0	0
	(255)	(10)	(3)	(0)	(3)	(0)	(0)	(108)	(2)	(3)	(0)	(1)	(0)	(0)	(147)	(8)	(0)	(0)	(2)	(0)	(0)
Text message	88.6	7.7	1.5	.7	1.1	.4	0	88.6	7	3.5	.9	0	0	0	88.5	8.3	0	.6	1.9	.6	0
	(240)	(21)	(4)	(2)	(3)	(1)	(0)	(101)	(8)	(4)	(1)	(0)	(0)	(0)	(139)	(13)	(0)	(1)	(3)	(1)	(0)
Instant messenger	92.3	5.2	1.5	.4	.4	.4	0	90.4	6.1	3.5	0	0	0	0	93.6	4.5	0	.6	.6	.6	0
	(250)	(14)	(4)	(1)	(1)	(1)	(0)	(103)	(7)	(4)	(0)	(0)	(0)	(0)	(147)	(7)	(0)	(1)	(1)	(1)	(0)
Social networking site	91.1	6.6	.7	.4	.7	.4	0	91.2	7	.9	.9	0	0	0	91.1	6.4	.6	0	1.3	.6	0
	(247)	(18)	(2)	(1)	(2)	(1)	(0)	(104)	(8)	(1)	(1)	(0)	(0)	(0)	(143)	(10)	(1)	(0)	(2)	(1)	(0)
Picture message	93	5.5	.7	0	.7	0	0	91.2	7	.9	0	.9	0	0	94.3	4.5	.6	0	.6	0	0
	(252)	(15)	(2)	(0)	(2)	(0)	(0)	(104)	(8)	(1)	(0)	(1)	(0)	(0)	(148)	(7)	(1)	(0)	(1)	(0)	(0)
Video chat	95.9	3	.7	.4	0	0	0	95.6	2.6	1.8	0	0	0	0	96.2	3.2	0	.6	0	0	0
	(260)	(8)	(2)	(1)	(0)	(0)	(0)	(109)	(3)	(2)	(0)	(0)	(0)	(0)	(151)	(5)	(0)	(1)	(0)	(0)	(0)
Email	97.8	1.1	.4	0	.7	0	0	97.4	.9	.9	0	.9	0	0	98.1	1.3	0	0	.6	0	0
	(265)	(3)	(1)	(0)	(2)	(0)	(0)	(111)	(1)	(1)	(0)	(1)	(0)	(0)	(154)	(2)	(0)	(0)	(1)	(0)	(0)
Chatroom	97.8	1.5	.4	.4	0	0	0	97.4	.9	.9	.9	0	0	0	98.1	1.9	0	0	0	0	0
	(265)	(4)	(1)	(1)	(0)	(0)	(0)	(111)	(1)	(1)	(1)	(0)	(0)	(0)	(154)	(3)	(0)	(0)	(0)	(0)	(0)
Website/Blog	97.8	1.1	.7	0	.4	0	0	97.4	.9	1.8	0	0	0	0	98.1	1.3	0	0	.6	0	0
	(265)	(3)	(2)	(0)	(1)	(0)	(0)	(111)	(1)	(2)	(0)	(0)	(0)	(0)	(154)	(2)	(0)	(0)	(1)	(0)	(0)
Threat^a																					
Phone call	94.5	4.8	.4	0	.4	0	0	93.9	5.3	.9	0	0	0	0	94.9	4.5	0	0	.6	0	0
	(256)	(13)	(1)	(0)	(1)	(0)	(0)	(107)	(6)	(1)	(0)	(0)	(0)	(0)	(149)	(7)	(0)	(0)	(1)	(0)	(0)
Text message	93	5.5	.4	.4	.7	0	0	93.9	4.4	.9	.9	0	0	0	92.4	6.4	0	0	1.3	0	0
	(252)	(15)	(1)	(1)	(2)	(0)	(0)	(107)	(5)	(1)	(1)	(0)	(0)	(0)	(145)	(10)	(0)	(0)	(2)	(0)	(0)
Instant messenger	95.6	3.7	0	0	.7	0	0	94.7	4.4	0	0	.9	0	0	96.2	3.2	0	0	.6	0	0
	(259)	(10)	(0)	(0)	(2)	(0)	(0)	(108)	(5)	(0)	(0)	(1)	(0)	(0)	(151)	(5)	(0)	(0)	(1)	(0)	(0)

Social networking site	94.8	4.1	0	.4	.7	0	0	94.7	4.4	0	.9	0	0	0	94.9	3.8	0	0	1.3	0	0
	(257)	(11)	(0)	(1)	(2)	(0)	(0)	(108)	(5)	(0)	(1)	(0)	(0)	(0)	(149)	(6)	(0)	(0)	(2)	(0)	(0)
Picture message	97.4	2.2	0	0	.4	0	0	96.5	2.6	0	0	.9	0	0	98.1	1.9	0	0	0	0	0
	(264)	(6)	(0)	(0)	(1)	(0)	(0)	(110)	(3)	(0)	(0)	(1)	(0)	(0)	(154)	(3)	(0)	(0)	(0)	(0)	(0)
Video chat	97.4	2.2	0	.4	0	0	0	96.5	2.6	0	.9	0	0	0	98.1	1.9	0	0	0	0	0
	(264)	(6)	(0)	(1)	(0)	(0)	(0)	(110)	(3)	(0)	(1)	(0)	(0)	(0)	(154)	(3)	(0)	(0)	(0)	(0)	(0)
Email	97	2.2	0	0	.7	0	0	96.5	2.6	0	0	.9	0	0	97.5	1.9	0	0	.6	0	0
	(263)	(6)	(0)	(0)	(2)	(0)	(0)	(110)	(3)	(0)	(0)	(1)	(0)	(0)	(153)	(3)	(0)	(0)	(1)	(0)	(0)
Chatroom	97	2.6	0	.4	0	0	0	95.6	3.5	0	.9	0	0	0	98.1	1.9	0	0	0	0	0
	(263)	(7)	(0)	(1)	(0)	(0)	(0)	(109)	(4)	(0)	(1)	(0)	(0)	(0)	(154)	(3)	(0)	(0)	(0)	(0)	(0)
Website/Blog	98.2	1.5	0	0	.4	0	0	97.4	2.6	0	0	0	0	0	98.7	.6	0	0	.6	0	0
	(266)	(4)	(0)	(0)	(1)	(0)	(0)	(111)	(3)	(0)	(0)	(0)	(0)	(0)	(155)	(1)	(0)	(0)	(1)	(0)	(0)
Checked up on^a																					
Phone call	74.9	14	3.3	2.2	1.5	3	1.1	77.2	12.3	4.4	0	1.8	1.8	.6	73.2	15.3	2.5	3.8	1.3	3.8	0
	(203)	(38)	(9)	(6)	(4)	(8)	(3)	(88)	(14)	(5)	(0)	(2)	(2)	(3)	(115)	(24)	(4)	(6)	(2)	(6)	(0)
Text message	72.3	14	4.8	1.8	1.8	4.1	1.1	74.6	12.3	7	0	1.8	1.8	2.6	70.7	15.3	3.2	3.2	1.9	5.7	0
	(196)	(38)	(13)	(5)	(5)	(11)	(3)	(85)	(14)	(8)	(0)	(2)	(2)	(3)	(111)	(24)	(5)	(5)	(3)	(9)	(0)
Instant messenger	83	9.6	1.5	1.8	1.1	2.6	.4	80.7	11.4	2.6	.9	1.8	1.8	.9	84.7	8.3	.6	3.5	.6	3.2	0
	(225)	(26)	(4)	(5)	(3)	(7)	(1)	(92)	(13)	(3)	(1)	(2)	(2)	(1)	(133)	(13)	(1)	(4)	(1)	(5)	(0)
Social networking site	86.3	8.9	.4	1.1	1.1	1.1	1.1	86	10.5	0	0	.9	0	2.6	86.6	7.6	.6	1.9	1.3	1.9	0
	(234)	(24)	(1)	(3)	(3)	(3)	(3)	(98)	(12)	(0)	(0)	(1)	(0)	(3)	(136)	(12)	(1)	(3)	(2)	(3)	(0)
Picture message	94.1	3	0	.4	1.1	1.1	.4	91.2	5.3	0	0	.9	1.8	.9	96.2	1.3	0	.6	1.3	.6	0
	(255)	(8)	(0)	(1)	(3)	(3)	(1)	(104)	(6)	(0)	(0)	(1)	(2)	(1)	(151)	(2)	(0)	(1)	(2)	(1)	(0)
Video chat	94.1	3	.7	.4	.7	.4	.7	92.1	4.4	0	0	1.8	0	1.8	95.5	1.9	1.3	.6	0	.6	0
	(255)	(8)	(2)	(1)	(2)	(1)	(2)	(105)	(5)	(0)	(0)	(2)	(0)	(2)	(150)	(3)	(2)	(1)	(0)	(1)	(0)
Email	95.9	1.8	0	.7	.4	.7	.4	93	4.4	0	0	.9	.9	.9	98.1	0	0	1.3	0	.6	0
	(260)	(5)	(0)	(2)	(1)	(2)	(1)	(106)	(5)	(0)	(0)	(1)	(1)	(1)	(154)	(0)	(0)	(2)	(0)	(1)	(0)
Chatroom	95.9	2.2	0	.4	.4	.4	.7	93	4.4	0	0	.9	0	1.8	98.1	.6	0	.6	0	.6	0
	(260)	(6)	(0)	(1)	(1)	(1)	(2)	(106)	(5)	(0)	(0)	(1)	(0)	(2)	(154)	(1)	(0)	(1)	(0)	(1)	(0)
Website/Blog	96.3	1.5	0	.7	.7	.4	.4	93.9	3.5	0	0	1.8	0	.9	98.1	0	0	1.3	0	.6	0
	(261)	(4)	(0)	(2)	(2)	(1)	(1)	(107)	(4)	(0)	(0)	(2)	(0)	(1)	(154)	(0)	(0)	(2)	(0)	(1)	(0)
Asked for unwanted sexting^a																					
Phone call	97.4	.4	.7	0	.7	.7	0	97.4	0	0	0	1.8	.9	0	97.5	.6	1.3	0	0	.6	0

	(264)	(1)	(2)	(0)	(2)	(2)	(0)	(111)	(0)	(0)	(0)	(2)	(1)	(0)	(153)	(1)	(2)	(0)	(0)	(1)	(0)
Text message	96.3	1.5	.7	0	.7	.7	0	95.6	1.8	0	0	1.8	.9	0	96.8	1.3	1.3	0	0	.6	0
	(261)	(4)	(2)	(0)	(2)	(2)	(0)	(109)	(2)	(0)	(0)	(2)	(1)	(0)	(152)	(2)	(2)	(0)	(0)	(1)	(0)
Instant messenger	97	.7	.4	.4	.7	.7	0	94.7	1.8	0	.9	1.8	.9	0	98.7	0	.6	0	0	.6	0
	(263)	(2)	(1)	(1)	(2)	(2)	(0)	(108)	(2)	(0)	(1)	(2)	(1)	(0)	(155)	(0)	(1)	(0)	(0)	(1)	(0)
Social networking site	97	1.1	.4	.7	.4	.4	0	94.7	2.6	0	1.8	.9	0	0	98.7	0	.6	0	0	.6	0
	(263)	(3)	(1)	(2)	(1)	(1)	(0)	(108)	(3)	(0)	(2)	(1)	(0)	(0)	(155)	(0)	(1)	(0)	(0)	(1)	(0)
Picture message	97	1.1	.4	.4	.4	.7	0	95.6	1.8	0	.9	.9	.9	0	98.1	.6	.6	0	0	.6	0
	(263)	(3)	(1)	(1)	(1)	(2)	(0)	(109)	(2)	(0)	(1)	(1)	(1)	(0)	(154)	(1)	(1)	(0)	(0)	(1)	(0)
Video chat	97.8	.7	.4	0	.4	.4	.4	97.4	.9	0	0	.9	0	.9	98.1	.6	.6	0	0	.6	0
	(265)	(2)	(1)	(0)	(1)	(1)	(1)	(111)	(1)	(0)	(0)	(1)	(0)	(1)	(154)	(1)	(1)	(0)	(0)	(1)	(0)
Email	98.5	.4	.4	.4	0	0	.4	97.4	.9	0	.9	0	0	.9	99.4	0	.6	0	0	0	0
	(267)	(1)	(1)	(1)	(0)	(0)	(1)	(111)	(1)	(0)	(1)	(0)	(0)	(1)	(156)	(0)	(1)	(0)	(0)	(0)	(0)
Chatroom	98.5	.4	.4	0	.4	0	.4	97.4	.9	0	0	.9	0	.9	99.4	0	.6	0	0	0	0
	(267)	(1)	(1)	(0)	(1)	(0)	(1)	(111)	(1)	(0)	(0)	(1)	(0)	(1)	(156)	(0)	(1)	(0)	(0)	(0)	(0)
Website/Blog	97.4	1.1	.7	0	.4	0	.4	95.6	1.8	.9	0	.9	0	.9	98.7	.6	.6	0	0	0	0
	(264)	(3)	(2)	(0)	(1)	(0)	(1)	(109)	(2)	(1)	(0)	(1)	(0)	(1)	(155)	(1)	(1)	(0)	(0)	(0)	(0)
Sent unwanted sexting^a																					
Phone call	97.8	1.1	0	.7	0	0	.4	97.4	.9	0	1.8	0	0	0	98.1	1.3	0	0	0	0	.6
	(265)	(3)	(0)	(2)	(0)	(0)	(1)	(111)	(1)	(0)	(2)	(0)	(0)	(0)	(154)	(2)	(0)	(0)	(0)	(0)	(1)
Text message	97.8	1.1	0	.7	0	0	.4	97.4	.9	0	1.8	0	0	0	98.1	1.3	0	0	0	0	.6
	(265)	(3)	(0)	(2)	(0)	(0)	(1)	(111)	(1)	(0)	(2)	(0)	(0)	(0)	(154)	(2)	(0)	(0)	(0)	(0)	(1)
Instant messenger	98.2	1.1	0	.7	0	0	0	97.4	.9	0	1.8	0	0	0	98.7	1.3	0	0	0	0	0
	(266)	(3)	(0)	(2)	(0)	(0)	(0)	(111)	(1)	(0)	(2)	(0)	(0)	(0)	(155)	(2)	(0)	(0)	(0)	(0)	(0)
Social networking site	98.9	.4	0	.4	0	0	.4	99.1	0	0	.9	0	0	0	98.7	.6	0	0	0	0	.6
	(268)	(1)	(0)	(1)	(0)	(0)	(1)	(113)	(0)	(0)	(1)	(0)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(0)	(1)
Picture message	98.2	1.1	0	.4	.4	0	0	98.2	.9	0	.9	0	0	0	98.1	1.3	0	0	.6	0	0
	(266)	(3)	(0)	(1)	(1)	(0)	(0)	(112)	(1)	(0)	(1)	(0)	(0)	(0)	(154)	(2)	(0)	(0)	(1)	(0)	(0)
Video chat	99.6	0	0	.4	0	0	0	99.1	0	0	.9	0	0	0	100	0	0	0	0	0	0
	(270)	(0)	(0)	(1)	(0)	(0)	(0)	(113)	(0)	(0)	(1)	(0)	(0)	(0)	(157)	(0)	(0)	(0)	(0)	(0)	(0)
Email	99.3	.4	0	.4	0	0	0	98.2	.9	0	.9	0	0	0	100	0	0	0	0	0	0
	(269)	(1)	(0)	(1)	(0)	(0)	(0)	(112)	(1)	(0)	(1)	(0)	(0)	(0)	(157)	(0)	(0)	(0)	(0)	(0)	(0)
Chatroom	99.3	.4	0	.4	0	0	0	98.2	.9	0	.9	0	0	0	100	0	0	0	0	0	0
	(269)	(1)	(0)	(1)	(0)	(0)	(0)	(112)	(1)	(0)	(1)	(0)	(0)	(0)	(157)	(0)	(0)	(0)	(0)	(0)	(0)

Website/Blog	98.9	.7	.4	0	0	0	0	97.4	1.8	.9	0	0	0	0	100	0	0	0	0	0	0
	(268)	(2)	(1)	(0)	(0)	(0)	(0)	(111)	(2)	(1)	(0)	(0)	(0)	(0)	(157)	(0)	(0)	(0)	(0)	(0)	(0)
Checked messages^b																					
Phone call	89.6	5.9	2.2	.4	.7	.7	.4	87.7	7.9	1.8	0	.9	.9	.9	91	4.5	2.6	.6	.6	.6	0
	(242)	(16)	(6)	(1)	(2)	(2)	(1)	(100)	(9)	(2)	(0)	(1)	(1)	(1)	(142)	(7)	(4)	(1)	(1)	(1)	(0)
Text message	84.4	9.6	3	.4	1.1	1.5	0	83.3	9.6	3.5	0	1.8	1.8	0	85.3	9.6	2.6	.6	.6	1.3	0
	(228)	(26)	(8)	(1)	(3)	(4)	(0)	(95)	(11)	(4)	(0)	(2)	(2)	(0)	(133)	(15)	(4)	(1)	(1)	(2)	(0)
Instant messenger	88.9	6.3	2.6	.4	.7	1.1	0	86.8	7.9	3.6	0	1.8	.9	0	90.4	5.1	2.6	.6	0	1.3	0
	(240)	(17)	(7)	(1)	(2)	(3)	(0)	(99)	(9)	(3)	(0)	(2)	(1)	(0)	(141)	(8)	(8)	(1)	(0)	(2)	(0)
Social networking site	85.2	8.9	2.6	1.1	1.1	1.1	0	83.3	10.5	2.6	1.8	.9	.9	0	86.5	7.7	2.6	.6	1.3	1.3	0
	(230)	(24)	(7)	(3)	(3)	(3)	(0)	(95)	(12)	(3)	(2)	(1)	(1)	(0)	(135)	(12)	(4)	(1)	(2)	(2)	(0)
Picture message	93.7	3	1.9	.7	0	.7	0	92.1	4.4	1.8	.9	0	.9	0	94.9	1.9	1.9	.6	0	.6	0
	(253)	(8)	(5)	(2)	(0)	(2)	(0)	(105)	(5)	(2)	(1)	(0)	(1)	(0)	(148)	(3)	(3)	(1)	(0)	(1)	(0)
Video chat	94.8	2.6	1.5	.4	0	.7	0	92.1	4.4	1.8	.9	0	.9	0	96.8	1.3	1.3	0	0	.6	0
	(256)	(7)	(4)	(1)	(0)	(2)	(0)	(105)	(5)	(2)	(1)	(0)	(1)	(0)	(151)	(2)	(2)	(0)	(0)	(1)	(0)
Email	95.2	2.2	1.5	0	.4	.7	0	93	3.5	1.8	0	.9	.9	0	96.8	1.3	1.3	0	0	.6	0
	(257)	(6)	(4)	(0)	(1)	(2)	(0)	(106)	(4)	(2)	(0)	(1)	(1)	(0)	(151)	(2)	(2)	(0)	(0)	(1)	(0)
Chatroom	95.6	1.9	1.9	0	0	.7	0	93	3.5	2.6	0	0	.9	0	97.4	.6	1.3	0	0	.6	0
	(258)	(5)	(5)	(0)	(0)	(2)	(0)	(106)	(4)	(3)	(0)	(0)	(1)	(0)	(152)	(1)	(2)	(0)	(0)	(1)	(0)
Website/Blog	95.6	1.9	1.5	.4	0	.7	0	93	3.5	1.8	.9	0	.9	0	97.4	.6	1.3	0	0	.6	0
	(258)	(5)	(4)	(1)	(0)	(2)	(0)	(106)	(4)	(2)	(1)	(0)	(1)	(0)	(152)	(1)	(2)	(0)	(0)	(1)	(0)
Demanded passwords^b																					
Phone call	97	1.1	.7	.4	0	0	.7	94.7	1.8	.9	.9	0	0	1.8	98.7	.6	.6	0	0	0	0
	(262)	(3)	(2)	(1)	(0)	(0)	(2)	(108)	(2)	(1)	(1)	(0)	(0)	(2)	(154)	(1)	(1)	(0)	(0)	(0)	(0)
Text message	94.8	3	1.1	.4	0	0	.7	91.2	5.3	.9	.9	0	0	1.8	97.4	1.3	1.3	0	0	0	0
	(256)	(8)	(3)	(1)	(0)	(0)	(2)	(104)	(6)	(1)	(1)	(0)	(0)	(2)	(152)	(2)	(2)	(0)	(0)	(0)	(0)
Instant messenger	96.7	1.1	1.1	.4	0	0	.7	93.9	2.6	.9	.9	0	0	1.8	98.7	0	1.3	0	0	0	0
	(261)	(3)	(3)	(1)	(0)	(0)	(2)	(107)	(3)	(1)	(1)	(0)	(0)	(2)	(154)	(0)	(2)	(0)	(0)	(0)	(0)
Social networking site	95.9	1.9	1.1	.4	.4	0	.4	93	3.5	.9	.9	.9	0	.9	98.1	.6	1.3	0	0	0	0
	(259)	(5)	(3)	(1)	(1)	(0)	(1)	(106)	(4)	(1)	(1)	(1)	(0)	(1)	(153)	(1)	(2)	(0)	(0)	(0)	(0)
Picture message	98.5	0	.4	.4	.4	0	.4	96.5	0	.9	.9	.9	0	.9	100	0	0	0	0	0	0
	(266)	(0)	(1)	(1)	(1)	(0)	(1)	(110)	(0)	(1)	(1)	(1)	(0)	(1)	(156)	(0)	(0)	(0)	(0)	(0)	(0)
Video chat	98.1	.4	.4	.7	0	0	.4	95.6	.9	.9	1.8	0	0	.9	100	0	0	0	0	0	0
	(265)	(1)	(1)	(2)	(0)	(0)	(1)	(109)	(1)	(1)	(2)	(0)	(0)	(1)	(156)	(0)	(0)	(0)	(0)	(0)	(0)

Email	98.1	.4	.4	.7	0	0	.4	95.6	.9	.9	1.8	0	0	.9	100	0	0	0	0	0	0
	(265)	(1)	(1)	(2)	(0)	(0)	(1)	(109)	(1)	(1)	(2)	(0)	(0)	(1)	(156)	(0)	(0)	(0)	(0)	(0)	(0)
Chatroom	98.1	.4	.7	.4	0	0	.4	95.6	.9	1.8	.9	0	0	.9	100	0	0	0	0	0	0
	(265)	(1)	(2)	(1)	(0)	(0)	(1)	(109)	(1)	(2)	(1)	(0)	(0)	(1)	(156)	(0)	(0)	(0)	(0)	(0)	(0)
Website/Blog	97.8	1.1	.4	.4	0	0	.4	95.6	1.8	.9	.9	0	0	.9	99.4	.6	0	0	0	0	0
	(264)	(3)	(1)	(1)	(0)	(0)	(1)	(109)	(2)	(1)	(1)	(0)	(0)	(1)	(155)	(1)	(0)	(0)	(0)	(0)	(0)
Deleted contacts^b																					
Phone call	94.1	3.7	1.1	.4	0	.4	.4	92.1	4.4	1.8	.9	0	0	.9	95.5	3.2	.6	0	0	.6	0
	(254)	(10)	(3)	(1)	(0)	(1)	(1)	(105)	(5)	(2)	(1)	(0)	(0)	(1)	(149)	(5)	(1)	(0)	(0)	(1)	(0)
Text message	93	5.2	1.1	0	0	.4	.4	91.2	6.1	1.8	0	0	0	.9	94.2	4.5	.6	0	0	.6	0
	(251)	(14)	(3)	(0)	(0)	(1)	(1)	(104)	(7)	(2)	(0)	(0)	(0)	(1)	(147)	(7)	(1)	(0)	(0)	(1)	(0)
Instant messenger	96.3	2.6	.7	0	0	0	.4	93.9	4.4	.9	0	0	0	.9	98.1	1.3	.6	0	0	0	0
	(260)	(7)	(2)	(0)	(0)	(0)	(1)	(107)	(5)	(1)	(0)	(0)	(0)	(1)	(153)	(2)	(1)	(0)	(0)	(0)	(0)
Social networking site	94.1	4.1	1.1	0	0	.4	.4	93	5.3	.9	0	0	0	.9	94.9	3.2	1.3	0	0	.6	0
	(254)	(11)	(3)	(0)	(0)	(1)	(1)	(106)	(6)	(1)	(0)	(0)	(0)	(1)	(148)	(5)	(2)	(0)	(0)	(1)	(0)
Picture message	97	1.9	.4	.4	0	0	.4	94.7	2.6	.9	.9	0	0	.9	98.7	1.3	0	0	0	0	0
	(262)	(5)	(1)	(1)	(0)	(0)	(1)	(108)	(3)	(1)	(1)	(0)	(0)	(1)	(154)	(2)	(0)	(0)	(0)	(0)	(0)
Video chat	97.8	1.5	0	.4	0	.4	0	96.5	1.8	0	.9	0	.9	0	98.7	1.3	0	0	0	0	0
	(264)	(4)	(0)	(1)	(0)	(1)	(0)	(110)	(2)	(0)	(1)	(0)	(1)	(0)	(154)	(2)	(0)	(0)	(0)	(0)	(0)
Email	96.3	2.6	0	.4	.4	.4	0	94.7	3.5	0	.9	.9	0	0	97.4	1.9	0	0	0	.6	0
	(260)	(7)	(0)	(1)	(1)	(1)	(0)	(108)	(4)	(0)	(1)	(1)	(0)	(0)	(152)	(3)	(0)	(0)	(0)	(1)	(0)
Chatroom	97.8	1.5	0	.7	0	0	0	96.5	1.8	0	1.8	0	0	0	98.7	1.3	0	0	0	0	0
	(264)	(4)	(0)	(2)	(0)	(0)	(0)	(110)	(2)	(0)	(2)	(0)	(0)	(0)	(154)	(2)	(0)	(0)	(0)	(0)	(0)
Website/Blog	96.7	2.6	0	.7	0	0	0	94.7	3.5	0	1.8	0	0	0	98.1	1.9	0	0	0	0	0
	(261)	(7)	(0)	(2)	(0)	(0)	(0)	(108)	(4)	(0)	(2)	(0)	(0)	(0)	(153)	(3)	(0)	(0)	(0)	(0)	(0)
Afraid to respond^b																					
Phone call	97	1.5	.7	0	0	.4	.4	96.5	1.8	.9	0	0	0	.9	97.4	1.3	.6	0	0	.6	0
	(262)	(4)	(2)	(0)	(0)	(1)	(1)	(110)	(2)	(1)	(0)	(0)	(0)	(1)	(152)	(2)	(1)	(0)	(0)	(1)	(0)
Text message	95.6	3	.7	0	0	.4	.4	95.6	2.6	.9	0	0	0	.9	95.5	3.2	.6	0	0	.6	0
	(258)	(8)	(2)	(0)	(0)	(1)	(1)	(109)	(3)	(1)	(0)	(0)	(0)	(1)	(149)	(5)	(1)	(0)	(0)	(1)	(0)
Instant messenger	97.4	1.5	.7	0	0	.4	0	96.5	1.8	.9	0	0	.9	0	98.1	1.3	.6	0	0	0	0
	(263)	(4)	(2)	(0)	(0)	(1)	(0)	(110)	(2)	(1)	(0)	(0)	(1)	(0)	(153)	(2)	(1)	(0)	(0)	(0)	(0)
Social networking site	97.4	1.5	.4	0	0	.7	0	97.4	.9	.9	0	0	.9	0	97.4	1.9	0	0	0	.6	0
	(263)	(4)	(1)	(0)	(0)	(2)	(0)	(111)	(1)	(1)	(0)	(0)	(1)	(0)	(152)	(3)	(0)	(0)	(0)	(1)	(0)

Picture message	98.1	1.1	.4	0	.4	0	0	97.4	.9	.9	0	.9	0	0	98.7	1.3	0	0	0	0	0
	(265)	(3)	(1)	(0)	(1)	(0)	(0)	(111)	(1)	(1)	(0)	(1)	(0)	(0)	(154)	(2)	(0)	(0)	(0)	(0)	(0)
Video chat	98.5	.7	.4	0	.4	0	0	98.2	0	.9	0	.9	0	0	98.7	1.3	0	0	0	0	0
	(266)	(2)	(1)	(0)	(1)	(0)	(0)	(112)	(0)	(1)	(0)	(1)	(0)	(0)	(154)	(2)	(0)	(0)	(0)	(0)	(0)
Email	98.5	.4	.4	0	0	.7	0	98.2	0	.9	0	0	.9	0	98.7	.6	0	0	0	.6	0
	(266)	(1)	(1)	(0)	(0)	(2)	(0)	(112)	(0)	(1)	(0)	(0)	(1)	(0)	(154)	(1)	(0)	(0)	(0)	(1)	(0)
Chatroom	98.1	.7	.4	0	0	.7	0	97.4	.9	.9	0	0	.9	0	98.7	.6	0	0	0	.6	0
	(265)	(2)	(1)	(0)	(0)	(2)	(0)	(111)	(1)	(1)	(0)	(0)	(1)	(0)	(154)	(1)	(0)	(0)	(0)	(1)	(0)
Website/Blog	98.1	1.1	.4	0	.4	0	0	96.5	1.8	.9	0	.9	0	0	99.4	.6	0	0	0	0	0
	(265)	(3)	(1)	(0)	(1)	(0)	(0)	(110)	(2)	(1)	(0)	(1)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(0)	(0)
Tech prevention^b																					
Phone call	95.9	3.3	.7	0	0	0	0	94.7	4.4	.9	0	0	0	0	96.8	2.6	.6	0	0	0	0
	(259)	(9)	(2)	(0)	(0)	(0)	(0)	(108)	(5)	(1)	(0)	(0)	(0)	(0)	(151)	(4)	(1)	(0)	(0)	(0)	(0)
Text message	96.3	2.6	.7	0	0	.4	0	95.6	3.5	.9	0	0	0	0	96.8	1.9	.6	0	0	.6	0
	(260)	(7)	(2)	(0)	(0)	(1)	(0)	(109)	(4)	(1)	(0)	(0)	(0)	(0)	(151)	(3)	(1)	(0)	(0)	(1)	(0)
Instant messenger	96.3	2.6	.7	0	0	.4	0	95.6	3.5	.9	0	0	0	0	96.8	1.9	.6	0	0	.6	0
	(260)	(7)	(2)	(0)	(0)	(1)	(0)	(109)	(4)	(1)	(0)	(0)	(0)	(0)	(151)	(3)	(1)	(0)	(0)	(1)	(0)
Social networking site	97	1.9	.7	0	0	.4	0	96.5	2.6	.9	0	0	0	0	97.4	1.3	.6	0	0	.6	0
	(262)	(5)	(2)	(0)	(0)	(1)	(0)	(110)	(3)	(1)	(0)	(0)	(0)	(0)	(152)	(2)	(1)	(0)	(0)	(1)	(0)
Picture message	98.5	.7	.4	0	0	.4	0	97.4	1.8	.9	0	0	0	0	99.4	0	0	0	0	.6	0
	(266)	(2)	(1)	(0)	(0)	(1)	(1)	(111)	(2)	(1)	(0)	(0)	(0)	(0)	(155)	(0)	(0)	(0)	(0)	(1)	(0)
Video chat	98.9	.7	.4	0	0	0	0	97.4	1.8	.9	0	0	0	0	100	0	0	0	0	0	0
	(267)	(2)	(1)	(0)	(0)	(0)	(0)	(111)	(2)	(1)	(0)	(0)	(0)	(0)	(156)	(0)	(0)	(0)	(0)	(0)	(0)
Email	98.9	.7	.4	0	0	0	0	97.4	1.8	.9	0	0	0	0	100	0	0	0	0	0	0
	(267)	(2)	(1)	(0)	(0)	(0)	(0)	(111)	(2)	(1)	(0)	(0)	(0)	(0)	(156)	(0)	(0)	(0)	(0)	(0)	(0)
Chatroom	98.1	1.5	.4	0	0	0	0	96.5	2.6	.9	0	0	0	0	99.4	.6	0	0	0	0	0
	(265)	(4)	(1)	(0)	(0)	(0)	(0)	(110)	(3)	(1)	(0)	(0)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(0)	(0)
Website/Blog	98.1	1.1	.7 (2)	0	0	0	0	96.5	1.8	1.8	0	0	0	0	99.4	.6	0	0	0	0	0
	(265)	(3)		(0)	(0)	(0)	(0)	(110)	(2)	(2)	(0)	(0)	(0)	(0)	(155)	(1)	(0)	(0)	(0)	(0)	(0)

Note: ^a 271 respondents; ^b 270 respondents

Insulting, mean or hurtful personal comments e.g. called names, putdowns.

Based on a total of 272 adolescents (115 male and 157 female), 24% (19% males and 28% females) reported instigating insults, mean or hurtful personal comments towards a girlfriend or boyfriend by some form of ECT at least once.

Fourteen per cent (10% males and 17% females) reported instigating insults, mean or hurtful personal comments towards a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 21% (17% males and 24% females) by text message, 14% (16% males and 13% females) by instant messenger, 14% (11% males and 17% females) by social networking site, 5% (5% males and 5% females) by picture message, 4% (5% males and 4% females) by video chat, 3% (4% males and 1% females) by email, 3% (4% males and 1% females) by chatroom, and 3% (5% males and 1% females) by website or blog.

Comments or acts that were intended to embarrass, humiliate, or shame (e.g. spreading rumours).

Based on a total of 272 adolescents (115 male and 157 female), 11% (9% males and 13% females) reported instigating comments or acts that were intended to embarrass, humiliate or shame a partner (e.g. spreading rumours) towards a girlfriend or boyfriend by some form of ECT at least once.

Seven per cent (6% males and 8% females) reported instigating comments or acts that were intended to embarrass, humiliate or shame a partner (e.g. spreading rumours) towards a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 10% (9% males and 10% females) by text message, 7% (8% males and 6% females) by instant messenger, 8% (7% males and 8% females) by social networking site, 4% (4% males and 3% females) by picture message, 3% (4% males and 2.5% females) by video chat, 3% (5% males and 2% females) by email, 3% (4% males and 2% females) by chatroom, and 3% (4% males and 2% females) by website or blog.

Shared or distributed private or personal information, images, or videos etc.

Based on a total of 271 adolescents (114 male and 157 female), 14% (12% males and 16% females) reported sharing or distributing a girlfriend or boyfriend's private or personal information, images, or videos etc. by some form of ECT at least once.

Six per cent (5% males and 6% females) reported sharing or distributing a girlfriend or boyfriend's private or personal information, images, or videos etc. at least once or more in the last 12 months by phone call, 11% (11% males and 11.5% females) by text message, 8% (10% males and 6% females) by instant messenger, 9% (9% males and 9% females) by social networking site, 7% (9% males and 6% females) by picture message, 4% (4% males and 4% females) by video chat, 2% (3% males and 2% females) by email, 2% (3% males and 2% females) by chatroom, and 2% (3% males and 2% females) by website or blog.

Threatening comments or behaviours that were intended to threaten harm, intimidate, or bully.

Based on a total of 271 adolescents (114 male and 157 female), 8% (7% males and 8% females) reported instigating threatening comments or behaviours that were intended to threaten harm, intimidate or bully a girlfriend or boyfriend by some form of ECT at least once.

Five-point-five per cent (6% males and 5% females) reported instigating threatening comments or behaviours that were intended to threaten harm, intimidate or bully a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 7% (6% males and 8% females) by text message, 4% (5% males and 4% females) by instant messenger, 5% (5% males and 5% females) by social networking site, 3% (3.5% males and 2% females) by picture message, 3% (3.5% males and 2% females) by video chat, 3% (3.5% males and 2.5% females) by email, 3% (4% males and 2% females) by chatroom, and 2% (3% males and 1% females) by website or blog.

Contacted to check on and ask where are, what are doing and who are with.

Based on a total of 271 adolescents (114 male and 157 female), 34% (31% males and 36% females) instigated contacting a girlfriend or boyfriend to check on them and ask them where they are, what they are doing and who they are with by some form of ECT at least once.

Twenty-five per cent (23% males and 27% females) reported instigating contacting a girlfriend or boyfriend to check on them and ask them where they are, what they are doing and who they are with at least once or more in the last 12 months by phone call, 28% (25% males and 29%

females) by text message, 17% (19% males and 15% females) by instant messenger, 14% (14% males and 13% females) by social networking site, 6% (9% males and 4% females) by picture message, 6% (8% males and 4.5% females) by video chat, 4% (7% males and 2% females) by email, 4% (7% males and 2% females) by chatroom, and 4% (6% males and 2% females) by website or blog.

Asked or pressured to engage in unwanted sexual acts or to send messages or pictures.

Based on a total of 271 adolescents (114 male and 157 female), 6% (8% males and 4.5% females) reported asking or pressuring a girlfriend or boyfriend to engage in sexual acts or to send messages or pictures that they did not want by some form of ECT at least once.

Three per cent (3% males and 2.5% females) reported asking or pressuring a girlfriend or boyfriend to engage in sexual acts or to send messages or pictures that they did not want at least once or more in the last 12 months by phone call, 4% (4% males and 3% females) by text message, 3% (5% males and 1% females) by instant messenger, 3% (5% males and 1% females) by social networking site, 3% (4% males and 2% females) by picture message, 2% (3% males and 2% females) by video chat, 1.5% (3% males and 1% females) by email, 1.5% (3% males and 1% females) by chatroom, and 3% (4% males and 1% females) by website or blog.

Sent unwanted sexual or inappropriate messages or pictures etc.

Based on a total of 271 adolescents (114 male and 157 female), 5% (5% males and 4.5% females) reported having sent unwanted sexual or inappropriate messages or pictures etc. to a girlfriend or boyfriend by some form of ECT at least once.

Two per cent (3% males and 2% females) reported having sent unwanted sexual or inappropriate messages or pictures etc. to a girlfriend or boyfriend at least once or more in the last 12 months by phone call, 2% (3% males and 2% females) by text message, 2% (3% males and 1% females) by instant messenger, 1% (1% males and 1% females) by social networking site, 2% (2% males and 1% females) by picture message, 0.4% (1% males and 0% females) by video chat, 1% (2%

males and 0% females) by email, 1% (2% males and 0% females) by chatroom, and 1% (3% males and 0% females) by website or blog.

Checked messages, contact histories, or friend lists and networks.

Based on a total of 270 adolescents (114 male and 156 female), 17% (18% males and 17% females) reported having checked a girlfriend or boyfriend's messages, contact histories, or friend lists and networks on some form of ECT at least once.

Ten per cent (12% males and 9% females) reported having checked a girlfriend or boyfriend's messages, contact histories, or friend lists and networks at least once or more in the last 12 months by phone call, 16% (17% males and 15% females) by text message, 11% (13% males and 10% females) by instant messenger, 15% (17% males and 13.5% females) by social networking site, 6% (8% males and 5% females) by picture message, 5% (8% males and 3% females) by video chat, 5% (7% males and 3% females) by email, 4% (7% males and 3% females) by chatroom, and 4% (7% males and 3% females) by website or blog.

Demanded passwords to check messages, contact histories, or friend lists and networks.

Based on a total of 270 adolescents (114 male and 156 female), 6% (10% males and 3% females) reported having demanded a girlfriend or boyfriend's passwords demanded to check their messages, contact histories, or friend lists and networks by some form of ECT at least once.

Three per cent (5% males and 1% females) reported having demanded a girlfriend or boyfriend's passwords demanded to check their messages, contact histories, or friend lists and networks at least once or more in the last 12 months by phone call, 5% (9% males and 3% females) by text message, 3% (6% males and 1% females) by instant messenger, 4% (7% males and 2% females) by social networking site, 1.5% (3.5% males and 0% females) by picture message, 2% (4% males and 0% females) by video chat, 2% (4% males and 0% females) by email, 2% (4% males and 0% females) by chatroom, and 2% (4% males and 1% females) by website or blog.

Deleted or removed contacts, friends, or ex-partners.

Based on a total of 270 adolescents (114 male and 156 female), 9% (10.5% males and 8% females) reported having deleted or removed a girlfriend or boyfriend's contacts, friends, or ex-partners by some form of ECT at least once.

Six per cent (8% males and 4.5% females) reported having deleted or removed a girlfriend or boyfriend's contacts, friends, or ex-partners at least once or more in the last 12 months by phone call, 7% (9% males and 6% females) by text message, 4% (6% males and 2% females) by instant messenger, 6% (7% males and 5% females) by social networking site, 3% (5% males and 1% females) by picture message, 2% (3.5% males and 1% females) by video chat, 4% (5% males and 3% females) by email, 2% (3.5% males and 1% females) by chatroom, and 3% (5% males and 2% females) by website or blog.

Made feel afraid not to respond to a call, text, message etc.

Based on a total of 270 adolescents (114 male and 156 female), 7% (10% males and 5% females) reported making a girlfriend or boyfriend feel afraid not to respond to a call, text, message etc. by some form of ECT at least once.

Three per cent (3.5% males and 3% females) reported making a girlfriend or boyfriend feel afraid not to respond to a call, text, message etc. at least once or more in the last 12 months by phone call, 4% (4% males and 4.5% females) by text message, 3% (3.5% males and 2% females) by instant messenger, 3% (3% males and 3% females) by social networking site, 2% (3% males and 1% females) by picture message, 1.5% (2% males and 1% females) by video chat, 1.5% (2% males and 1% females) by email, 2% (3% males and 1% females) by chatroom, and 2% (3.5% males and 1% females) by website or blog.

Prevented from using electronic communication technology or from talking to others.

Based on a total of 270 adolescents (114 male and 156 female), 6% (7% males and 6% females) reported having prevented a girlfriend or boyfriend from using ECT or from talking to others by some form of ECT at least once.

Four per cent (5% males and 3% females) reported having prevented a girlfriend or boyfriend from using ECT or from talking to others at least once or more in the last 12 months by phone call, 4% (4% males and 3% females) by text message, 4% (4% males and 3% females) by instant messenger,

3% (3.5% males and 3% females) by social networking site, 1.5% (3% males and 1% females) by picture message, 1% (3% males and 0% females) by video chat, 1% (3% males and 0% females) by email, 2% (3.5% males and 1% females) by chatroom, and 2% (3.5% males and 1% females) by website or blog.

Appendix 18: Data screening Chapter 4: Dating experience

Data Screening of the Dating Experience Items

Table A18.1 summarises the means, standard deviations, minimum and maximum response, and correlations with social desirability for the adolescent dating relationship experience items. Bonferroni corrections were applied to correct for multiple comparisons (e.g. $.05/5 = .01$ and $.05/7 = .007$).

Table A18.1
Means, Standard Deviations, Range, and Correlations with Social Desirability (CSD)

	Male				Female			
	M	SD	Range	CSD (r/sr)	M	SD	Range	CSD (r/sr)
Dating experience								
Ever dated	1.20	.40	1-2	.08	1.18	.38	1-2	.26***
Currently dating	1.83	.38	1-2	-.00	1.82	.38	1-2	.09
Dated in last 12 months	1.46	.50	1-2	.00	1.36	.48	1-2	.23***
Ever dated online	1.86	.35	1-2	.01	1.88	.32	1-2	.09
Met latest partner online	1.94	.24	1-2	-.04	1.97	.18	1-2	.01
Age started dating	4.53	2.43	1-11	.06	5.09	2.16	1-11	-.00
Number of relationships	3.02	1.33	1-5	.00	2.75	1.22	1-5	-.02
Age of partner	3.02	.59	1-5	-.17	3.30	.68	1-5	-.15
Length of latest relationship	2.48	1.37	1-5	.00	2.44	1.35	1-5	.07
Time since last relationship	2.32	1.12	1-5	-.01	2.29	1.02	1-5	.10
How often see partner outside of school	4.62	1.48	1-6	.02	4.72	1.36	1-6	-.23**
Time spent with partner when see them	3.47	1.36	1-5	-.03	3.52	1.25	1-5	.04

Note: * Correlation is significant at the .01 level (2-tailed); ** .001 level. Bonferroni corrected

Appendix 19: Data screening: Chapter 4: TAADVA and ADVA

Data Screening of the TAADVA Behaviour Items in Chapter 4

Table A19.1 summarises the means, standard deviations, minimum and maximum response, and point biserial correlations with social desirability for the TAADVA victimisation and instigation subscales used. Bonferroni corrections were applied to the 12 TAADVA behaviour variables to correct for multiple comparisons (e.g. $.05/12 = .004$).

Table A19.1
Means, Standard Deviations, Range, and Correlations with Social Desirability (CSD)

	Male				Female			
	M	SD	Range	CSD (r)	M	SD	Range	CSD (r)
TAADVA victim	15.91	7.08	12-51.56	-.03	14.82	5.85	12-70.56	-.10
Insult	1.55	1.12	1-7	-.05	1.48	.90	1-6	-.04
Embarrass	1.31	.77	1-6.33	-.06	1.32	.78	1-6.11	-.09
Shared	1.35	.94	1-7	-.03	1.23	.70	1-5.33	-.03
Threat	1.20	.69	1-6.89	-.01	1.21	.69	1-6.11	-.08
Checked up on	1.75	1.24	1-7	.01	1.49	.91	1-6	-.11
Sexting pressure	1.15	.67	1-7	-.03	1.16	.54	1-6	-.19
Sexting unwanted	1.13	.42	1-3.67	-.00	1.15	.51	1-6	-.17
Check messages	1.69	1.47	1-7	-.08	1.27	.72	1-6	-.11
Demand passwords	1.18	.61	1-5	.00	1.08	.43	1-6	.05
Delete friends	1.36	1.04	1-7	.12	1.19	.54	1-5	-.06
Afraid not to respond	1.08	.34	1-4	-.04	1.10	.46	1-6.11	-.16
Technology prevention	1.21	.87	1-7	-.07	1.13	.53	1-6.22	-.05
TAADVA instigator	13.42	4.52	12-54.56	-.06	13.00	2.23	12-29.22	-.14
Insult	1.15	.55	1-5.89	-.06	1.16	.41	1-3.56	-.14
Embarrass	1.10	.44	1-4.78	-.05	1.07	.31	1-4.11	-.01
Shared	1.09	.37	1-4	-.03	1.09	.32	1-3.22	-.08
Threat	1.06	.32	1-3.89	-.16	1.05	.24	1-3.22	-.16
Checked up on	1.31	.92	1-7	-.12	1.25	.63	1-6	-.15
Sexting pressure	1.12	.63	1-6.22	-.09	1.04	.26	1-3.22	-.10
Sexting unwanted	1.04	.27	1-3.67	.14	1.02	.17	1-3	-.10
Check messages	1.22	.67	1-6	-.04	1.14	.52	1-6	-.18
Demand passwords	1.15	.74	1-7	-.05	1.01	.09	1-1.89	.03
Delete friends	1.11	.54	1-6	-.07	1.04	.22	1-3.22	.02
Afraid not to respond	1.07	.49	1-5.89	.06	1.04	.25	1-3.78	-.16
Technology prevention	1.05	.22	1-2.78	-.15	1.03	.21	1-3.33	-.13
Controlling ADVA victim	.21	.64	0-4	-.19*	.35	.67	0-3.75	-.14
Controlling ADVA instigator	.24	.67	0-4	-.24*	.31	.57	0-3	-.16
Physical ADVA victim	.12	.39	0-2.60	-.09	.07	.17	0-1	-.12
Physical ADVA instigator	.08	.39	0-3	-.11	.05	.17	0-1.47	-.08

Note: Note: * Correlation is significant at the .05 level (2-tailed).

Appendix 20: Factor analysis pattern and factor correlation matrix for the TAADVA questionnaire

Table A20.1

Pattern matrix summary of the exploratory factor analysis for the TAADVA victimisation measure ($n = 274-277$)

Item	Factor loadings								
	1	2	3	4	5	6	7	8	9
1. Unwanted sexting - WB	.647				.308				
2. Unwanted sexting - CR	.642								
3. Demanded passwords - EM	.622								
4. Demanded passwords - PM	.616								
5. Demanded passwords - WB	.614		-.303						
6. Demanded passwords - CR	.580								
7. Demanded passwords - SNS	.551								
8. Demanded passwords - PC	.532								
9. Unwanted sexting - EM	.510								
10. Demanded passwords - VC	.499				.303				
11. Sexting pressure - CR	.467					.315			
12. Sexting pressure - EM	.451					.340			
13. Unwanted sexting - VC	.427					.302			
14. Sexting pressure - WB	.425						-.318		
15. Demanded passwords - IM	.423							.345	
16. Threats - EM	.421						-.417		
17. Demanded passwords - TM	.378							.355	
18. Shared/distributed information - WB		.770							
19. Shared/distributed information - VC		.718							
20. Shared/distributed information - EM		.714							
21. Shared/distributed information - CR		.684							
22. Shared/distributed information - PM	-.323	.632							
23. Shared/distributed information - IM		.613							
24. Shared/distributed information - SNS		.591							
25. Insult - CR		.583							
26. Shared/distributed information - TM	-.302	.561							
27. Insult - WB		.547							

28. Insult - EM	.543			
29. Shared/distributed information - PC	.527			
30. Insult – PM	.423		.301	.423
31. Insult - VC	.386			
32. Checked messages - PC		-.925		
33. Checked messages – IM		-.914		
34. Checked messages – SNS		-.878		
35. Checked messages – PM		-.875		
36. Checked messages – TM		-.874		
37. Checked messages – VC		-.829		
38. Checked messages – EM		-.796		
39. Checked messages – CR		-.760		
40. Checked messages -WB		-.753		
41. Deleted contacts – VC			.905	
42. Deleted contacts – CR			.903	
43. Deleted contacts – EM			.890	
44. Deleted contacts – WB			.890	
45. Deleted contacts – PM			.860	
46. Deleted contacts – PC			.856	
47. Deleted contacts – TM			.856	
48. Deleted contacts – IM			.832	
49. Deleted contacts - SNS			.812	
50. Prevention of ECT use – EM		.529		-.347
51. Prevention of ECT use – CR		.527	.310	-.384
52. Prevention of ECT use – WB		.471	.309	-.401
53. Prevention of ECT use - VC		.461	.440	-.316
54. Embarrassed/humiliated - EM		.429	.412	
55. Embarrassed/humiliated - WB		.353		-.319
56. Afraid to not respond - PM			.825	
57. Afraid to not respond - IM			.797	
58. Afraid to not respond - VC			.782	
59. Afraid to not respond – WB			.777	
60. Afraid to not respond – CR			.769	
61. Afraid to not respond – EM			.760	

62. Afraid to not respond – TM		.730			
63. Afraid to not respond – PC		.722			
64. Afraid to not respond - SNS		.720			
65. Unwanted sexting – PC		.492	.413		
66. Unwanted sexting – SNS		.427			
67. Embarrassed/humiliated - CR		.411		-.375	
68. Unwanted sexting – IM		.399	.366		.301
69. Sexting pressure – TM			.798		
70. Sexting pressure – PM			.785		
71. Sexting pressure – SNS			.710		
72. Unwanted sexting – PC			.685		
73. Prevention of ECT use – PM	.334		.649		
74. Prevention of ECT use - TM	.342		.550		
75. Sexting pressure – VC			.525		
76. Sexting pressure – IM			.524		
77. Prevention of ECT use - IM	.347		.477		-.342
78. Unwanted sexting - TM		.372	.476		.302
79. Prevention of ECT use - SNS	.374		.473		
80. Sexting pressure - PC			.419		
81. Prevention of ECT use - PC			.399	.343	
82. Threats - SNS				-.848	
83. Threats - IM				-.847	
84. Embarrassed/humiliated - IM				-.808	
85. Embarrassed/humiliated - TM				-.808	
86. Embarrassed/humiliated - SNS				-.788	
87. Threats – TM				-.761	
88. Threats - PC				-.737	
89. Threats - PM				-.730	
90. Embarrassed/humiliated - PC				-.720	
91. Threats – CR				-.641	
92. Threats - VC	.308			-.618	
93. Embarrassed/humiliated – PM				-.614	
94. Embarrassed/humiliated - VC				-.436	
95. Threats - WB	.370			-.397	

96. Check up on / whereabouts - PM											.800
97. Check up on / whereabouts – VC											.781
98. Check up on / whereabouts – SNS											.747
99. Check up on / whereabouts - IM											.726
100. Check up on / whereabouts – TM											.683
101. Check up on / whereabouts – PC											.648
102. Check up on / whereabouts – CR											.630
103. Check up on / whereabouts – EM											.608
104. Check up on / whereabouts - WB											.598
105. Insults – TM											.661
106. Insults – IM											.597
107. Insults – SNS											.575
108. Insults - PC											.571
	Eigenvalues	42.62	7.83	6.77	5.55	4.87	4.06	3.25	2.58	2.23	
	% of variance	39.47	7.25	6.27	5.14	4.51	3.76	3.01	2.39	2.07	

Note: Factor labels: (1) demanding passwords, unwanted sexting, sexting pressure and threat; (2) shared/distributed information and insults; (3) checked messages or contact histories only; (4) deleted friends, prevention of ECT use and embarrassment/humiliation; (5) made afraid not to respond to contact, unwanted sexting and embarrassment/humiliation; (6) sexting pressure, unwanted sexting and prevention from ECT use; (7) threats and embarrassment/humiliation; (8) contact to check up on you only; and (9) insults only

Table 201.2

Factor Correlation Matrix

Factor	1	2	3	4	5	6	7	8	9
1	1.000	.192	-.269	.197	.221	.211	-.173	.152	-.124
2	-	1.000	-.306	.221	.151	.219	-.402	.332	.097
3	-	-	1.000	-.349	-.281	-.314	.231	-.381	-.083
4	-	-	-	1.000	.337	.300	-.368	.246	-.028
5	-	-	-	-	1.000	.332	-.309	.258	.095
6	-	-	-	-	-	1.000	-.267	.136	-.016
7	-	-	-	-	-	-	1.000	-.255	-.163
8	-	-	-	-	-	-	-	1.000	.153
9	-	-	-	-	-	-	-	-	1.000

Appendix 21: Data screening Chapter 5: Predictors

Data Screening of the TAADVA Predictor Factor Items in Chapter 5

Table A21.1 summarises the means, standard deviations, minimum and maximum response, and Pearson's/Spearman's Rho correlations with social desirability for the potential correlates of TAADVA (predictor variables). These included: anxious and avoidant attachment, friend historical and current TAADVA victimisation and instigation, controlling and physical ADVA victimisation and instigation, relationship closeness, age of partner, and age. Bonferroni corrections were applied to correct for multiple comparisons (e.g. $.05/13 = .004$).

Table A21.1

Means, Standard Deviations, Range, and Correlations with Social Desirability (CSD)

	Male				Female			
	M	SD	Range	CSD (<i>r/r_s</i>)	M	SD	Range	CSD (<i>r/r_s</i>)
Avoidant attachment	4.58	1.00	2.67-7	-.16	4.70	.96	2.21-7	.09
Anxious attachment	2.37	1.25	1-7	.12	2.48	1.28	1-7	-.10
Friend historical TAADVA victim	0.57	.92	0-4	-.11	0.91	1.18	0-4	-.04
Friend current TAADVA victim	0.20	.55	0-3	-.05	0.33	.79	0-4	-.05
Friend historical TAADVA instigator	0.21	.63	0-4	-.02	0.29	.76	0-4	-.08
Friend current TAADVA instigator	0.12	.44	0-2.5	-.05	0.57	.57	0-4	.05
Controlling behaviours victim	.21	.64	0-4	-.19	.35	.67	0-3.75	-.14
Controlling behaviours instigator	.24	.67	0-4	-.24	.31	.57	0-3	-.16
Physical violence victim	.12	.39	0-2.60	-.09	.07	.17	0-1	-.12
Physical violence instigator	.08	.39	0-3	-.11	.05	.17	0-1.47	-.08
Relationship closeness	4.71	1.43	1-7	-.09	4.56	1.35	1-7	-.09
Age of partner	3.02	.59	1-5	-.17	3.30	.68	1-5	-.15
Age	14.09	1.47	12-18	-.06	14.16	1.33	12-18	-.07

Note: All non-significant at $p = .004$ (two-tailed) Bonferroni corrected

Appendix 22: Data screening Chapter 6: Predictors

Data Screening of the TAADVA and ADVA Predictor Factor Items in Chapter 6

Table A22.1 summarises the means, standard deviations, minimum and maximum response, and Spearman's Rho correlations with social desirability for the avoidant and anxious attachment scales to each person (mother, father, partner, and friend). Bonferroni corrections were applied to correct for multiple comparisons for the friend dating violence (e.g. $.05/4 = .01$) and attachment (e.g. $.05/8 = .006$) variables.

Table A22.1

Means, Standard Deviations, Range, and Correlations with Social Desirability (CSD)

	Male				Female			
	M	SD	Range	CSD (r_s)	M	SD	Range	CSD (r_s)
Friend historical dating violence victimisation	1.17	0.47	1-4	-.01	1.28	0.68	1-5	-.04
Friend current dating violence victimisation	1.48	0.76	1-5	-.12	1.72	0.96	1-5	-.07
Friend historical dating violence instigation	1.17	0.48	1-4	-.04	1.25	0.63	1-5	-.10
Friend current dating violence instigation	1.12	0.40	1-3.2	-.05	1.13	0.54	1-5	.05
Avoidant attachment								
Mother	4.83	1.36	1.33-7	-.04	4.78	1.63	1-7	.13
Father	4.38	1.47	1-7	-.06	4.20	1.59	1-7	.12
Partner	4.24	1.37	1-7	-.13	4.45	1.26	1-7	-.05
Friend	4.85	1.25	2-7	-.21	5.38	1.27	1-7	-.10
Anxious attachment								
Mother	1.98	1.55	1-7	.19	2.12	1.69	1-7	-.11
Father	2.13	1.64	1-7	.07	2.11	1.66	1-7	-.06
Partner	2.72	1.64	1-7	-.02	2.99	1.67	1-7	-.05
Friend	2.66	1.75	1-7	.03	2.76	1.92	1-7	-.08

Note: All non-significant at $p = .006$ (two-tailed) Bonferroni corrected