Australian National University

Improving understanding of adolescents' perceptions of their relationships with their parents.

Sarah McKenna, *BA/BSc(Psych.)(Hons.)*

Research School of Psychology

The Australian National University, Canberra, Australia

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Declaration

I declare that this thesis reports my original work, no part of this thesis has been accepted

previously and presented for the award of any degree or diploma from any university, and to

the best of my knowledge no material published by another individual is included in this

thesis, except where due acknowledgement is given.

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Sarah Louise Mckenna

"There are few situations in life which are more difficult to cope with than an adolescent son or daughter during the attempt to liberate themselves."

- Anna Freud (1958)

"The adolescent period of life is in reality the one with the most power for courage and creativity. Life is on fire when we hit our teens. And these changes are not something to avoid or just get through, but to encourage."

- Dan Siegel (2013)

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Study 2 has been published:

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Abstract

Adolescents' perceptions of their relationships with their parents predict the quality of these relationships as well as adolescent psychosocial outcomes. Despite this, adolescent attitudes towards parents are often assessed using self-report measures, partly due to a lack of interview or observational tools available, and there is a recognised need for more qualitative research on the underlying beliefs, attitudes, and expectations which shape adolescents' perspectives on their relationships with parents (Lester, 2013; Smetana, 2010). In three studies, this thesis explored adolescents' unique perceptions of their relationships with their parents and how these perspectives are related to adolescent psychosocial outcomes.

Study 1 was an individual participant data meta-analysis of the relationship between adolescent–parent discordance in reports of parenting and adolescent outcomes using polynomial regression. The interaction of adolescent and parent reports of parenting was not significantly related to adolescent psychosocial outcomes, suggesting that adolescents' and parents' differing perspectives on their relationship may be due to their unique attitudes, beliefs, and expectations as opposed to maladaptive family dynamics.

In Study 2 and 3, using an observational assessment tool and qualitative analytical methods, this thesis was able to provide unique information about how adolescents are impacted by their relationships with their parents, as compared to existing research. Study 2 explored the usefulness of a novel method—the Family Affective Attitudes Rating Scale (FAARS)—of coding adolescent narratives about their parents and the adolescent–parent relationship. This study found that adolescents whose attitudes towards parents are high in warmth and low in criticism report better outcomes, suggesting that adolescents' perspectives of the quality of adolescent–parent relationships are linked to their well-being.

Study 3 qualitatively analysed these narratives to explore common themes regarding adolescents' beliefs about their parents. Adolescents were generally positive towards parents,

valued closeness and emotional support from them, looked to them to role model valued traits, and generally respected parent rule setting. Mentions of conflict were often absent from the speech samples and were most likely to occur when parents were seen as stubborn and to not have adolescents' best interests at heart.

Overall, the results from the studies in this thesis suggest that adolescents' perspectives on their relationships with their parents provide unique information as compared to parents' reports and are linked to developmental outcomes. Accordingly, it is important that researchers explore how parenting behaviours and relationship dynamics are perceived by adolescents and not just the level at which they exist, when examining how adolescent outcomes are linked to the family environment. For this reason, researchers and clinicians would benefit from adopting a wider variety of assessment methods and research methodologies when examining the beliefs, attitudes, and expectations that shape adolescents' perceptions of their relationships with their parents.

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List of Common Abbreviations

BDSEE   Brief Dyadic Scale of Expressed Emotion

CU   Callous and Unemotional

FAARS   Family Affective Attitudes Rating Scale

FMSS   Five Minute Speech Sample

IPD   Individual Participant Data

IPPA   Inventory of Parent and Peer Attachment

NRS   Negative Relational Schemas

PRS   Positive Relational Schemas

RS   Relational Schemas

SDT   Social Determination Theory

SES   Socioeconomic Status

US   United States

Chapter 1 - Thesis Overview and Aims

Adolescence is almost universally considered a uniquely trying period for family relationships. During this time, individuals must succeed in in the difficult tasks of establishing independence, self-sufficiency, and a sense of identity as well as building close relationships outside of their family. This push for independence and individuality is often assumed to lead to conflict in families, and adolescent–parent relationships are seen as a 'battle'. Yet adolescents rely on parents to provide necessary support so that they can become thriving adults. It is therefore imperative that clinicians and researchers have a strong understanding of risk and protective factors in the family environment during this formative period.

A wealth of research has linked family dynamics to maladaptive adolescent outcomes, including internalising and externalising problems, along with indicators of wellbeing such as self-efficacy and academic achievement (McLeod et al., 2007a; McLeod et al., 2007b; Pinquart, 2017). Overall, adolescents experience better outcomes when relationships with parents are characterised by high levels of warmth and behavioural control, along with low levels of psychological control, criticism, and conflict. These findings have been consistently replicated using longitudinal, cross-sectional, and large cohort methods (McLeod et al., 2007a; McLeod et al., 2007b; Pinquart, 2017).

Yet, past studies have mostly focused on adolescent and parent self-reports of parenting and relationship dynamics, often at the between family level (meaning researchers are exploring the level at which dimensions exist across families rather than how these dimensions are interrelated within each family). Moreover, there is limited research using observational or interview methods to explore how adolescent–parent relationship dynamics are shaped by the unique attitudes, expectations, and beliefs of the individuals in these

relationships. This is problematic, as past research has shown that there are bidirectional relationships between adolescents' and parents' attitudes and behaviours, and that their perceptions of parenting and relationship dynamics often differ. Consequently, it is important to examine how parent behaviours are perceived by adolescents, not just the level at which they exist, when exploring how adolescent outcomes are linked to the family environment.

For instance, adolescents' perceptions of parent criticism and warmth predict externalising and internalising problems at 3 years, and these outcomes subsequently predict both adolescents' and parents' perceptions of parent warmth and criticism (Hale III et al., 2016). Thus, adolescents' attitudes and beliefs towards parents are associated with parents' own attitudes and behaviours as well as adolescent well-being. Moreover, there is some evidence that levels of concordance between adolescent and parent self-reports of parenting and relationship dynamics are linked to adolescent outcomes (De Los Reyes & Ohannessian, 2016; Hou et al., 2019; Korelitz & Garber, 2016). Again, this suggests that adolescents' unique attitudes, beliefs and expectations towards their parents are linked to developmental outcomes. For this reason, researchers have called for further studies on adolescents' beliefs and attitudes towards parents and have also called for more family researchers to adopt multi-method assessments and qualitative methodologies (Ganong & Coleman, 2014; Laursen & Collins, 2009).

In response to this call, the current thesis will argue that discordance between adolescent and parent reports of parenting and relationship quality should be explored using gold-standard statistical methods, to establish how this discordance is linked to key family dynamics. It is natural for parents and adolescents to have different perspectives on their interactions with each other. Indeed, adolescent–parent report discrepancies are so ubiquitous that they have been the focus of three recent meta-analyses as well as a special issue of the *Journal of Youth and Adolescence* (De Los Reyes & Ohannessian, 2016), named

"Discrepancies in adolescent–parent perceptions of the family and adolescent adjustment". Exploring links between levels of adolescent–parent concordance and adolescent outcomes may help researchers to better understand the meaning of adolescent–parent report discrepancies. Several explanations have been proposed for these discrepancies; for example, the depression-distortion hypothesis (Richters, 1992) posits that depressed mothers have distorted and inflated perceptions of problems in their relationships with their children, whilst other authors have argued that these discrepancies are due to measurement error. More recently, leading authors have hypothesised that levels of concordance on certain parenting and relationship dimensions may indicate maladaptive family dynamics that need to be understood in more depth by researchers and that should be targeted in clinical intervention (De Los Reyes & Ohannessian, 2016).

This thesis will also argue that research should adopt more diverse assessment and methodological approaches when examining bi-directional relationships between family dynamics and adolescent outcomes, as this will allow researchers to gain a more nuanced understanding of how adolescents' attitudes towards parents are linked to the quality of adolescent–parent relationships and adolescent well-being. Although researchers have often treated parenting behaviours as independent variables and adolescent outcomes as dependent variables, longitudinal research has shown that adolescent attitudes and behaviours may have more influence on parent behaviours than the reverse (e.g. Hale III et al., 2016; Nelemans et al., 2014; Nelemans et al., 2020). For example, adolescent internalising symptoms significantly predicted parent reports of parental criticism in a six-year longitudinal study, and this effect was mediated by adolescent perceptions of parental criticism (Nelemans et al., 2014). While parent behaviours and values have been shown to predict adolescent behaviours, these findings are less consistent and are specific to certain cultures and ages (Rothenberg et al., 2020). This suggests that adolescents have greater influence over family

dynamics as compared to parents, and that their perceptions of parental behaviours may better predict adolescent outcomes than parent reports. Despite this, there are few interview or observational assessment tools that are able to examine adolescents' perceptions of parents, and this has limited researchers' ability to examine the beliefs, attitudes, and expectations that underlay adolescents' behaviours towards parents.

In order for researchers to fully explore longitudinal relationships between adolescent outcomes and parent affective attitudes, it is crucial that we develop a more diverse range of assessment tools. There are very few observational or interview methods available, and even fewer that can feasibly be used in large cohort research to assess adolescent perceptions of parenting and family dynamics (Alderfer et al., 2008). As a result, researchers and clinicians have mostly relied on self-report questionnaire measures of adolescent perspectives, or else have relied on observational or interview-based measures of parents' behaviour and/or mental states. It is widely accepted that multi-method assessment produces more robust and in-depth clinical observations as each method of assessment, including self-report, observational, or interview, can provide qualitatively unique information.

Additionally, there is a need to further explore contradictory findings from longitudinal and qualitative research regarding adolescent and parent perceptions of the quality of their interactions (Smetana, 2011; Mastrotheodoros et al., 2019). For example, longitudinal research suggests that adolescents perceive greater increases in conflict intensity during early and middle adolescence as compared to parents (Mastrotheodoros et al., 2019).Yet, qualitative research suggests that parents should be more likely to experience high levels of negative affect during conflict with adolescents due to the fact that adolescents see negative interactions as a means to increase their autonomy and therefore as healthy, whereas parents believe that adolescents are rejecting their values and expectations during disagreements which can cause hurt and resentment (Steinberg, 2001; Smetana, 2011). To

resolve these discrepancies, it is vital that researchers continue to explore adolescents' attitudes and beliefs regarding parents using a variety of assessment and methodological approaches.

Overall, the main objective of this thesis was to provide an in-depth evaluation of adolescents' perceptions of parenting and family dynamics as well as how these attitudes are linked to adolescent outcomes. Accordingly, the research reported in this paper aimed to address three broad questions:

1. Are parents' and adolescents' differing perspectives on parenting and family functioning indicative of maladaptive or adaptive processes in the family environment?

2. Can an observational/interview assessment tool provide unique information about adolescents' perceptions of parent relationships as compared to established self-report questionnaires?

3. What themes exist in adolescent narratives about adolescent–parent relationships and how can this improve our understanding of individual processes that shape adolescent–parent interactions?

This thesis comprises six chapters, including three empirical studies designed to investigate the research questions. Chapter 2 is a literature review and describes theoretical perspectives on parenting and family dynamics during adolescence. It also reviews the established links between parenting and relationship dimensions and developmental outcomes. Building on this, Chapter 3 outlines themes in current research that have created impetus for a more in-depth understanding of adolescent perspectives on parent relationships; these include bidirectional relationships between parent/adolescent attitudes, expectations, and beliefs towards each other and adolescent wellbeing as well as low levels of concordance

in adolescent and parent self-reports of parenting, adolescent–parent relationship quality, and family functioning.

The first empirical study is reported in Chapter 4. It is an individual participant data (IPD) meta-analysis of the relationship between adolescent–parent discordance on reports of parenting and adolescent–parent relationship dimensions, and adolescent outcomes. This study used an innovative and complex statistical technique, namely polynomial regression, to address methodological limitations of past research in this area and to comprehensively test theoretical perspectives on the link between adolescent–parent report discordance and developmental outcomes.

Chapter 5 describes a quantitative analysis of a novel method of coding adolescents' narratives about their relationship with their parents, known as the Family Affective Attitudes Rating Scale (FAARS; Bullock & Dishion, 2007). Using multivariate regression techniques, this study assessed the relationship between the FAARS scales (such as negative relational schemas and positive relational schemas) and measures of adolescent outcomes. This study also explored whether the FAARS could provide unique information as compared to established questionnaire measures of adolescent–parent relationship quality, and further explain links between adolescent–parent relationship quality and developmental outcomes. This is the first study to explore the usefulness of this novel coding method in an adolescent population.

Using these adolescent narratives, Chapter 6 describes a qualitative analysis of adolescent perceptions of their relationships with parents. The goal of this research was to examine patterns in adolescent narratives about parents. This is the first qualitative study to explore uninterrupted and unprompted adolescent narratives regarding the adolescent–parent relationship and to provide a comprehensive view of the themes in these relationships that are most salient to adolescents.

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In summary, this thesis examines how adolescent and parent perceptions of parenting are related to adolescent wellbeing. It proposes that by examining these perceptions in more detail, researchers and clinicians can gain deeper insight into the meaning of adolescent–parent behaviours towards each other and identify further links between developmental outcomes and the family environment.

Chapter 2 - An Overview of Theoretical Perspectives and Empirical Findings Linking Parenting and Family Relationship Dimensions to Adolescent Wellbeing

Chapter 2 will review empirical and theoretical links between adolescent–parent relationships and adolescent outcomes. Although the need and desire for independence grows from childhood through adolescence, adaptive developmental outcomes continue to be linked to supportive and responsive adolescent–parent relationships during this period (reviews include Laursen & Collins, 2009; Meeus, 2016; Smetana, 2011; Steinberg, 2001). Prior research on parenting behaviours has found that adolescents experience better outcomes when parent warmth and behavioural control co-occur at high levels, while high levels of parent criticism and psychological control are linked to maladaptive outcomes (Smetana & Rote, 2019). The overall quality of the relationship is also important, as adolescents report better wellbeing when they perceive parent attitudes towards them as being more positive (Sher-Censor, 2015). Based on this past research, Chapter 2 will argue that adolescent–parent relationships are fundamentally important to adolescent wellbeing suggesting that, as will be further explored in Chapter 3, researchers should adopt multi-method assessments and qualitative methodologies in future research on adolescents and their families. This will allow researchers to gain more insight regarding the beliefs, attitudes, and expectations that inform their perceptions of parent behaviours and attitudes.

2.1 Defining adolescence

A recent review described adolescence as "beginning in dramatic biological changes and ending in cultural factors and historical change" (Smetana & Rote, 2019, p. 43). It is a period of significant biological, cognitive and social development during which individuals must progressively accomplish a number of developmental tasks in order to achieve the independence, self-sufficiency, and complex social relationships that characterize adulthood. Generally, adolescence is thought to be between the ages of 10 and 20 (10 to 13 is thought of as early adolescence, 14-17 as middle adolescence, and 18 to 20 as late adolescence; Smetana & Rote, 2019), however this age range changes markedly between cultures and societies, as accepted norms can influence how quickly adolescents are expected to achieve independence. For example, adolescence has traditionally been thought to end around the age of 20, though some theorists believe that in modern western societies adolescence may now extend to early twenties, as it is common for adolescents to live at home and be dependent upon parents for longer (Laursen & Collins, 2009). Overall, universal biological, cognitive, and social changes help to define the period of adolescence, though it is also shaped by cultural norms.

2.2 The relationship of parenting and parent-child relationship dynamics to adolescent development

Despite a popular assumption that adolescents seek as much distance as possible from their families and wholly reject their parents' influence, there is a strong body of evidence linking adolescent wellbeing to their relationships with their parents. This research has traditionally focused on two distinct aspects of the adolescent–parent relationship: a) the impact of parenting styles or behaviours, and b) the effects of relationship "qualities" including levels of warmth, criticism, closeness, and conflict (Bush & Peterson, 2013; Korelitz & Garber, 2016). Both of these perspectives, and related findings, are outlined below. Overall, adaptive adolescent outcomes (including self-efficacy, prosocial behaviour,

and positive academic outcomes) are positively linked to high levels of parent behavioural control and warmth (although, as will be explored below, it is necessary for these behaviours to co-occur in high levels), whereas psychological control, low autonomy support and high levels of criticism or conflict are linked to maladaptive outcomes (including internalising problems such as anxiety and depression, and externalising problems such as aggression, and delinquency; for reviews see McLeod et al., 2007a; McLeod et al., 2007b; Pinquart, 2017; Smetana & Rote, 2019). Given these well-established links between parent behaviours and adolescent wellbeing, it is imperative that researchers properly assess adolescents' experiences in their relationships with parents.

2.2.1 Categorical versus dimensional views of parenting behaviours

A broad range of parenting behaviours have been the focus of empirical research and researchers have defined these behaviours using an array of terms and definitions. There are two main approaches that have been used to understand and define parenting behaviours; a) a *categorical approach* categorises parenting behaviours according to a combination of parenting styles and b) a *dimensional approach* defines all parenting behaviours on two individual dimensions, warmth (or responsiveness) and control (or demandingness; Baumrind, 1991, 2005, 2012; Goldin, 1969; Martin, 1975; Rohner & Rohner, 1981).

Baumrind's foundational work on parenting styles has informed most research using the categorical approach. She defined four main parenting styles; namely, authoritative, authoritarian, permissive, and neglectful parenting (Baumrind, 1991, 2005, 2012). Authoritative parenting is thought to be the optimal style of parenting and is characterized by high levels of warmth as well as healthy power assertion involving well-reasoned, negotiable, and outcome-oriented discipline. Disobedience is dealt with by enforcing rules, using negative sanctions and by a combination of providing explanations and reasoning. By contrast, authoritarian parenting is characterised by coercive power tactics, that are often

arbitrary, domineering, peremptory, and status oriented. Discipline often involves verbal hostility, psychological control, and physical punishment. Finally, permissive parenting is characterised by high levels of warmth and acceptance along with low levels of behavioural control, while neglectful parenting is characterised by high levels of criticism, low warmth, and low levels of behavioural control (Baumrind, 1991, 2005, 2012).

The categorical approach assumes that parenting behaviours are linked to underlying parenting styles that remain consistent across situations and time. These styles are defined by the level of responsiveness and demandingness that parents display, and these levels are thought to be stable (Spera, 2005). Conversely, the dimensional approach assumes that all parents will exhibit varying levels of each parenting dimension, and that contextual or situational factors can vary the extent to which parents are likely to be responsive or demanding (Goldin, 1969; Martin, 1975; Rohner & Rohner, 1981). For example, parents who are initially low in responsiveness and demandingness may become more so if their teen engages in delinquent or aggressive behaviour. The dimensional approach is more commonly adopted by current research, as there is a growing acceptance that adolescent–parent relationships are dyadic (Kerr & Stattin, 2000; Kerr et al., 2012). As will be explored more below, parenting behaviours are shaped by adolescent behaviours as well as by contextual factors such as socioeconomic status (SES), cultural norms, and family intactness (Bush & Peterson, 2013; Longmore et al., 2013). It is therefore useful to investigate how parenting behaviours are uniquely shaped by family dynamics and environmental influences.

Two main dimensions of parenting have been identified in past literature: warmth (or responsiveness) and control (or demandingness; Goldin, 1969; Martin, 1975; Rohner & Rohner, 1981). Warmth refers to the extent to which parents foster independence, individuality, and self-assertion by being responsive, supportive, and attuned to their adolescent (Rohner & Khaleque, 2013). Warm behaviours include supportiveness, trust, and

communication. Control refers to the demands that parents place on adolescents to behave in ways that are going to enable them to thrive in society by adhering to accepted norms (Rohner & Khaleque, 2013). Research has distinguished two types of parental control, namely behavioural control and psychological control. Behavioural control is thought to be an adaptive form of influencing adolescent behaviour through behaviour regulation, direct confrontation, encouraging disclosure, and supervision of adolescents' activities (Bush & Peterson, 2013). By contrast, psychological control refers to behaviours that are non-responsive to the adolescents' emotional and psychological needs and that often inhibit adolescent autonomy and identity development. Psychological control behaviours include shaming, rejection and harsh punishment (Barber, 2002).

Overall, adolescent outcomes are better when interactions with parents are characterised by high levels of warmth, and high levels of behavioural control, along with low levels of psychological control (McLeod et al., 2007a; McLeod et al., 2007b; Pinquart, 2017). For example, research has consistently found that high levels of warmth and high levels of behavioural control are linked to lower levels of externalising and internalising behaviours (Smetana & Rote, 2019). Yet, it is important to note that warmth and behavioural control are reciprocally related, meaning that these dimensions are linked to adaptive outcomes only when they co-occur in high levels (theoretical relationships between these two dimensions are examined in more detail below; Kerr & Stattin, 2000; Kerr, Stattin & Özdemir, 2012). These results are consistent across adolescence, for both female and male caregivers (97% were biological parents, only 3% were grandparents, stepparents or other adult caregivers; Rothenberg et al., 2020), and in both individualistic and collectivistic societies (Smetana & Rote, 2019). Research also suggests that high levels of warmth and behavioural control are positively associated with adaptive outcomes such as adolescent academic achievement and with health behaviours such as exercise and eating habits,

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however these findings are not consistent across cultures and SES (Spera, 2005). There is less research exploring the effects of psychological control, as this dimension has only recently been defined by researchers, however studies have consistently linked high levels of psychological control to increased symptoms of depression, and anxiety as well as antisocial behaviour (e.g. Costa et al., 2019; Rogers et al., 2020).

Given strong empirical evidence linking behavioural control and warmth with adolescent wellbeing, it is important to be able to provide theoretical explanations for these relationships. Support and control appear to be reciprocally related (Smetana & Rote, 2019). When parents create more trust, closeness and respect, adolescents are more likely to adhere to expectations, and accept parent influence, which in turn leads to more positive interactions with parents. Likewise, supportive and open communication around parent values and rule-setting facilitates closeness and trust between parents and adolescents and may lead adolescents to perceive the relationship more positively. Thus, when they co-occur in high levels, warmth and behavioural control improve adolescent outcomes by increasing adolescents' willingness to comply with parent boundaries while simultaneously helping them to feel supported and respected by parents (Bush & Peterson, 2013; Longmore et al., 2013). In sum, while they are thought to be distinct parenting dimensions, research suggests that warmth and control are inextricably linked.

Social Determination Theory (SDT) may further explain how behavioural control and parent warmth are linked to adaptive adolescent outcomes (for reviews see Costa et al., 2016; Ryan & Deci, 2017). This theory posits three basic human needs: autonomy, competence, and relatedness. SDT considers these needs to be basic requirements in order for an individual to achieve effective functioning, wellbeing, growth and integrity (Ryan & Deci, 2017). When parents are able to set clear expectations for behaviour, to support adolescent autonomy seeking, and to provide encouragement, adolescents' basic needs are being met and they are

likely to thrive. By contrast, psychological control is considered a destructive form of parenting as it makes adolescents feel inadequate and inferior in their daily activities and leads to "need frustration". As a result, they are likely to experience maladaptive outcomes including low self-efficacy and antisocial behaviour (Costa et al., 2016).

To sum up, much research on adolescent–parent relationships has focused on the importance of parenting behaviours including warmth and control and has consistently found that adolescents experience better outcomes when parents display high levels of warmth and control concurrently. Put another way, adolescents need parents to provide clear boundaries and need to feel supported by them in order to thrive. Although some authors have argued that the level of control and warmth that parents display is generally stable across situations and time, recent research has consistently shown that parenting behaviours are shaped by contextual factors. More specifically, in Chapter 3, this thesis will explore how adolescents' attitudes, beliefs, and behaviours towards their parents influence parents' attitudes and behaviours. For this reason, studies 1 & 2 will adopt a dimensional rather than a categorical approach when defining parenting behaviours. Overall, the research outlined above has shown a number of empirical and theoretical links between parenting behaviours and adolescent outcomes, underlining the importance of fully understanding the attitudes, beliefs, and expectations that inform adolescent perceptions of parenting behaviours.

2.2.2. Adolescent–parent relationship quality is linked to adolescent outcomes

Along with examining parenting behaviours, including warmth, behavioural control, and psychological control, research has also examined the affective quality of adolescent–parent relationships (Bowlby, 1958, 1979; Brethereton, 1987; Belsky, 1984). As compared to parenting behaviours, literature on adolescent–parent relationship quality has investigated the affective attitudes and attributional styles that inform adolescent–parent interactions. While the conceptualisations of parenting outlined above relate to explicit, observable parenting

behaviours, literature on relationship quality attempts to explore underlying affective and cognitive structures. 'Gold standard' assessments of relationship quality employ observational or interview methods as individuals may lack insight into these dimensions (Darling & Steinberg, 1993). It should be noted that warm affective attitudes are correlated with but also distinct from warm parenting behaviours, as parents with warm affective attitudes towards adolescents may display critical parenting behaviours, while parents with more critical affective attitudes may at times demonstrate supportive or caring behaviours.

It is also important to note that 'gold-standard' assessments of relationship quality employ observational or interview methods as individuals may lack insight into these dimensions (Darling & Steinberg, 1993). Chapter 3 will argue that researchers have limited access to interview or observational assessment tools when assessing adolescents' affective attitudes towards parents. This is concerning given the strong empirical and theoretical links between adolescent–parent relationship quality and adolescent outcomes that are outlined in this section.

Attachment theorists have long studied the importance of cognitive-affective structures known as relational schemas (RS), that can be considered positive or negative based on the attributions that adolescents and parents make about each other's' behaviour (for reviews see Bretherton & Munholland, 2008 & Moretti & Peled, 2004). They have also described latent patterns of attachment that are linked to these schemas and can be characterized by four main styles: secure, avoidant, ambivalent/anxious and disorganized. Levels of expressed emotion, which generally refers to levels of criticism and parental over-involvement, have also been widely researched, and are strongly linked to maladaptive outcomes such as risk of relapse following in-patient care for schizophrenia or eating disorders (Sher-Censor, 2015).

At least in current research, however, the most popular indicators of adolescent–parent relationship quality appear to be warmth, closeness, criticism and conflict (Branje, 2018; 2019; Meeus, 2016; Rote & Smetana, 2016). Accordingly, these relationship dimensions will be the focus of studies 2 and 3. It should be noted that although warmth and criticism are often considered to be opposite ends of the same spectrum, they can co-occur in high levels and are independently related to adolescent outcomes. Moreover, though conflict may be more likely in relationships that are high in criticism, as explored above, disagreements are often considered adaptive during adolescence and can occur in both warm and critical relationships (Smetana, 2011).

Parental affective attitudes characterized by high levels of warmth and low levels of criticism have consistently been linked to more adaptive adolescent outcomes. Externalising problems (such as aggression and delinquency) have been linked to lower and higher levels of warm and critical affective attitudes, respectively. For example, a recent meta-analysis of 568 studies found a moderate negative association between child reports of perceived warm parent affective attitudes and child or parent reports of externalising problems, and this relationship strengthened over time (Pinquart, 2017). Likewise, a qualitative review found that high levels of expressed emotion (such as high levels of criticism and parental overinvolvement along with low levels of warmth) were linked to increased risk of adolescents' externalising behaviours (Sher-Censor, 2015). Internalising problems (including low mood and poor self-efficacy) have also been negatively linked to lower levels of warm parent affective attitudes but do not appear to be associated with critical parent affective attitudes (Sher-Censor, 2015). Furthermore, several quantitative reviews found that parent-reported warmth was moderately negatively related to anxiety and depression, and that the strength of the association reduced as adolescents grew older (McLeod et al., 2007a; McLeod et al., 2007b).

Meanwhile, high levels of conflict have been shown to predict maladaptive adolescent outcomes (Weymouth et al., 2016) although the strength of this relationship is linked to the focus of the argument, to the dyads conflict resolution style, and to the level of negative affect which is experienced during the disagreement. For example, one study with 1313 Dutch adolescents, including 923 early adolescents (M_{age} = 12.42) and 390 middle adolescents (M_{age} = 16.68) explored whether conflict resolution style moderated the link between conflicts and adolescent problems (Branje et al., 2009). Adolescents were more likely to experience internalising and externalising problems when they reported using strategies such as conflict engagement (which involved being verbally abusive, defiant and aggressive during conflict), exit (which involved ending all contact without resolving the conflict), withdrawal (which involved avoiding talking and becoming distant during arguments), or compliance (which involved accepting their parents' opinion without asserting their own), as compared to a positive problem solving approach (involving trying to understand their parents' position and finding a compromise; Branje et al., 2009).

Qualitative research has suggested that disagreements between adolescents and parents are also less maladaptive when the pair are disagreeing over 'personal' issues, such as how adolescents spend their time. These discussions are seen as an important aspect of developing independence by both parents and adolescents and are therefore associated with lower levels of negative affect (Smetana, 2011). Despite this, a recent review argued that in order for adolescents and parents to have developmentally 'healthy' arguments, it is important for them to be able to display both positive and negative emotions (Branje, 2018; 2019). When parents and adolescents can express criticism and frustration with each other but can also show interest in each other's opinions, use sarcasm, and laugh about the conflict, they are better able to negotiate with each other and to maintain a supportive relationship. Generally, conflict between adolescents and parents appears to be maladaptive when it

involves high levels of negative affect along with maladaptive resolutions styles such as conflict engagement, withdrawal, exit, or compliance (e.g. Branje, 2018, 2019; Meeus, 2016; Rote & Smetana, 2016).

As well as exploring empirical links between relationship quality and adolescent outcomes, researchers have helped to explain why these links may exist, providing a number of compelling theoretical explanations. For example, attachment research has found that when parents are warm and responsive towards adolescents' emotional states, adolescents view themselves as worthy of care, competent in mastering challenges, and able to manage difficult emotions, and view others as reliable and effective (Bretherton & Munholland, 2008; Moretti & Peled, 2004). By contrast, when parents are critical or over-exaggerated in their responses to adolescents' emotional needs, adolescents are likely to have low self-efficacy, poor emotional regulation skills, and to believe that they cannot rely on others for support. These adolescents are likely to be more distressed by challenges as compared to peers, and less able to build supportive, positive relationships with others. Consequently, they may experience more internalising problems and have friends who are likely to engage in delinquent or risk-taking behaviours (Bretherton & Munholland, 2008; Moretti & Peled, 2004).

Another theoretical perspective, Parent Acceptance-Rejection (PAR) theory postulates that individuals have an evolutionary imperative to seek affection from intimate relationships, as affection implies acceptance and closeness (Rohner et al., 2005; Rohner & Lansford, 2017). Acceptance from parents is seen as particularly important because children and adolescents have the strongest attachment to their primary caregivers. Notably, acceptance behaviours can be both verbal and physical, and their meaning changes between cultures and individuals, thus when exploring levels of acceptance or rejection in adolescent–parent relationships, it is important to examine how adolescents perceive parent behaviours

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(McNeely & Barber, 2010). For example, while physical touch and verbal expressions of affection are seen as caring in many Western societies, there are often strong norms against physical displays of affection in collectivistic societies (Rothbaum et al., 2000). When individuals feel rejected by parents during childhood or adolescence, they may see themselves as unworthy of support, and their sense of self-worth and efficacy may be threatened. Moreover, adolescents who have been rejected by caregivers may find it hard to develop supportive relationships with others, as they may display excessive care-seeking behaviours, or otherwise be cold and rejecting of others in order to prevent further rejection themselves. Thus, the quality of adolescent–parent relationships is linked to adolescents' abilities to establish independence, and to develop healthy relationships with others.

Overall, although researchers have explored adolescent–parent interactions using a range of frameworks, past findings nonetheless provide a consistent picture regarding how adolescent–parent relationships are linked to adaptive adolescent outcomes. When these relationships are characterised by high levels of warmth and behavioural control, along with low levels of criticism, conflict, and psychological control, adolescents are likely to experience fewer developmental problems (e.g. Branje, 2018; Smetana & Rote, 2019). Again, this research supports the fundamental importance of adolescent–parent relationships for adolescent development. For this reason, Chapter 3 will argue that it is important for researchers to gain a more nuanced perspective of adolescent perspectives on adolescent–parent relationship quality in more depth using interview and observational assessment tools and qualitative methodologies.

2.2.3. Other influences on adolescent development within the family environment

Along with exploring direct links between parent behaviours and adolescent outcomes, researchers have also considered how parenting and adolescent–parent relationship dynamics are influenced by ecological factors (e.g. Bush & Peterson, 2013; Longmore et al.,

2013). Factors such as culture, gender, family structure, SES, maternal employment, and sibling relationships have all been found to impact adolescent outcomes through their effects on the family environment suggesting that researchers and clinicians need to consider the context within which adolescent–parent interactions take place. The effect of sociological risk factors, such as low SES, on adolescent development may be mitigated by adolescent–parent relationship dynamics but may also negatively impact them. This creates impetus for researchers and clinicians to further explore adolescent–parent relationships and the sociocultural context in which they exist (Bush & Peterson, 2013; Longmore et al., 2013).

Adolescent and parent gender can impact the nature and quality of adolescent–parent interactions. For example, use of parenting strategies consistently differs between mothers and fathers, as mothers often have more responsibility for disciplining their adolescents compared to fathers, meaning that mothers may be more likely to demonstrate high levels of behavioural control (e.g. Bazrafshan et al., 2016; McKinney et al., 2018; Uji et al., 2014). Moreover, mothers are assumed to be more invested in maintaining positive family environments and take more responsibility for day-to-day tasks that are important for the functioning of the family. By contrast, fathers are assumed by sociological theorists to spend more 'quality' time with their family, for example by taking part in shared hobbies (Bazrafshan et al., 2016; McKinney et al., 2011; Uji et al., 2014). In addition, research with adolescents has shown that females are more able to be flexible during conflict and are more likely to resolve disagreements by submitting to others, as compared to male adolescents who have been found to be more rigid (Konrad, 2016). Taken together, past findings suggest that adolescent and parent gender is likely to influence the nature and quality of adolescent–parent interactions.

Adolescents' needs in relationships with parents appear to be universal, as the findings outlined above are generally consistent across cultures. Yet, there are some cross-

cultural differences that are worthy of further exploration. For example, research with small-scale cultures, which are collectivistic in nature, has found that adolescent–parent disagreement may be more aversive in these societies, compared with individualistic and developed cultures, as family members are generally more reliant on each other (Schlegel & Barry III, 1991). Meanwhile, Chinese culture has strong norms discouraging open and physical expressions of warmth and research has found that Chinese American youths' ideal levels of warmth and communication in their relationship with their parents varies as a function of their level of acculturation to the US (Wu & Chao, 2017). Regarding parent control, some evidence suggests that levels of adolescent disclosure are lower, and levels of secrecy higher, in non-Western as compared to Western samples (Shek, 2007). Adolescent and parent beliefs about legitimate parent authority remain consistent across cultures, such as parents and adolescents agree that parents have authority over moral or prudential (such as hygiene) issues but feel that adolescents should have more freedom over personal issues (such as how they spend their time; Smetana et al., 2015). Nonetheless, it is important to consider that research has overwhelmingly been conducted in western, industrialized countries, and that there is little work in other settings. While current evidence suggests that adolescents' fundamental needs in their relationships with parents are universal, there is some evidence to suggest that parenting dynamics vary between cultures and there is a strong need for research on adolescent–parent relationships to be more culturally and ethnically diverse.

Recent studies have found that higher family incomes predict prosocial outcomes during the time when children and adolescents are present in families as well as financial and occupational success after adulthood is attained (Bradley & Corwyn, 2002; Gershoff et al., 2007; Linver et al., 2002). Two models have been proposed to explain these links. The family stress model suggests that lower SES is associated with greater stress, depression, poor neighbourhoods, and disadvantaged living conditions for parents leading to greater emotional

distress and parental conflict, and a subsequent increase in maladaptive forms of parenting (for a review see Masarik & Conger, 2017). Conversely, the investment model argues that parents who have more economic resources are better able to provide significant investments in the development of their children, for example through private schools and tutors (Conger et al., 2007; Conger et al., 2009). This research suggests that SES indirectly impacts the influence of adolescent–parent relationships on adolescent wellbeing.

Likewise, adolescent academic outcomes and resilience are positively linked to maternal employment in adolescents from low SES backgrounds but is detrimental for adolescents in high SES backgrounds (e.g. Afroz, 2016; Ruhm, 2008). In low SES families, maternal employment is presumed to provide positive role modelling, especially for girls, and means that adolescents need to become more self-reliant and are less protected. Maternal employment also increases family income (Afroz, 2016; Bush & Peterson, 2013). By contrast, research suggests that in high socioeconomic families, maternal employment is linked to worse academic and socioemotional outcomes, possibly because maternal labour reduces the amount of time that adolescents spend in an enriching and supportive environment (Ruhm, 2008).

Further research has looked at the indirect impact of family structures on adolescent outcomes. Firstly, children of divorced parents scored significantly higher on measures of problematic outcomes and lower on positive measures of wellbeing compared to children with continuously married parents (e.g. Størksen et al., 2005; Størksen et al., 2006). This may be due to increased exposure to parental conflict as well as higher parental stress leading to maladaptive parenting behaviours. It is important to note, however, that children's adjustment to divorce may improve over time due to decreases in inter-parent conflict or increased ability of parents to shield adolescents from parent conflict (Bush & Peterson, 2013; Longmore et al., 2013). Poor quality sibling relationships have also been linked to

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maladaptive adolescent outcomes. Again, this link is theorized to be caused by increased parent stress as well as adolescents reduced abilities to cooperate with others and understand their perspectives (Bush & Peterson, 2013; Longmore et al., 2013).

In sum, various aspects of the family environment have been linked to adolescent wellbeing, including parenting behaviours and adolescent–parent relationship quality along with broader contextual factors including gender, SES and family structure. This research has helped to clarify links between family dynamics and adolescent outcomes and has created an overall picture of the characteristics of adaptive adolescent–parent relationships. Adolescents are more likely to thrive when they are from high SES backgrounds, intact families, and when they have good quality sibling relationships (Bush & Peterson, 2013; Longmore et al., 2013). As will be explored in chapters 4 to 7, the empirical studies reported in this thesis collected data on age, parent and adolescent gender, and cultural background to examine whether the empirical relationships and qualitative themes being studied varied between groups. A limitation of these studies was that they did not include data on family structure or SES, and the implications of this are explored in chapter 7.

2.3 Summary

Overall, past research has demonstrated the continued importance of parenting and family relationships during adolescence. This chapter has reviewed a number of empirical and theoretical links between parenting and adolescent–parent relationship quality and adolescent well-being. Generally, adolescents thrive when parenting behaviours are marked by high levels of behavioural control and warmth, and when their interactions involve high levels of closeness and support along with low levels of conflict. Simply, adolescents need clear boundaries to behave in accordance with social expectations, but also need to feel accepted and valued by parents to develop self-worth and efficacy. Chapter 3 will explore how multi-method assessments and qualitative methodologies can illuminate further links

between adolescent well-being and the family environment by providing a more nuanced

understanding of adolescent's attitudes, beliefs and expectations towards their relationships

with their parents.

Chapter 3- The Need for Further Multi-Method Research on Adolescent Perceptions of Their Parents

Chapter 3 will identify limitations of current research on adolescent–parent relationships and summarise areas for further research. In light of the well-established links between adolescent–parent relationships and adolescent outcomes, it is important for researchers to provide a clear picture of key dynamics in these relationships (Pinquart, 2017; Smetana & Rote, 2019). It is concerning then, that our understanding of maladaptive family dynamics has been limited by methodological and assessment issues. This chapter will explore how large-scale longitudinal studies have given us a broad picture of levels of closeness, conflict, and control in families across adolescence, but have not examined how these relationship dynamics are linked to the attitudes, beliefs, and expectations that adolescents have towards parents. Accordingly, this chapter will argue that more research should adopt multi-method assessments, within-family modelling, and qualitative methodologies, to provide a more nuanced picture of adolescent perceptions of their relationships with parents. Finally, this chapter will outline two areas of research that have explored the importance of adolescent–parent discordance in reports of parenting and their relationship, as well as bidirectional relationships between adolescents and parent's attitudes and behaviours towards each other. These areas of research will inform original empirical studies reported in chapters 4 to 6.

3.1 The Unique Importance of Adolescents' Perspectives of Their Parents

Research on adolescent–parent relationships has significantly improved our understanding of maladaptive family dynamics during adolescence and helped to challenge the traditional view apparent in early developmental literature, that relationships with parents become less influential and important during adolescence (Laursen & Collins, 2009; Smetana & Rote, 2019). Findings from longitudinal, cross-sectional, and large cohort research has provided strong evidence that adolescent outcomes are linked to parent behaviours (McLeod et al., 2007a; McLeod et al., 2007b; Pinquart, 2017). Yet, notwithstanding these important contributions, recent findings suggest that there has been an over-reliance on self-report measures, between-family methodologies, and parent-effect models (Alderfer, 2008; Meeus, 2016, 2018). This chapter will argue that there is a need for further in-depth exploration of adolescents' attitudes and beliefs towards parents, using non-self-report measures and qualitative methodology, as this may help to explain why adolescent outcomes are associated with their relationships with their parents, along with how their own attitudes and behaviours influence those of their parents.

Research on key dynamics (including closeness, conflict, and control) in adolescent–parent relationships can help to explain why adolescents' beliefs and attitudes towards parents are worthy of further exploration. Findings from longitudinal research suggest that positive relationship dynamics, such as closeness and parent behavioural control, tend to decline across early, middle, and late adolescence, whereas negative dynamics, such as conflict, tend to increase during early and middle adolescence (De Goede et al., 2009; Hadiwijaya et al., 2017). Yet, results from qualitative and within-family research indicates that not all adolescent–parent dyads experience equal declines in relationship quality (Branje, 2018; Meeus, 2016, 2018). In light of these past results, this chapter will argue that, in addition to examining cohort-level trends in key relationship dynamics, it is important to

examine how adolescents' individual attitudes, beliefs, and expectations are associated with the quality of their relationships with their parents and their developmental outcomes.

3.1.1 Longitudinal Findings on Levels of Closeness, Conflict and Control in Adolescent–Parent Relationships

Longitudinal and large cohort research has consistently found that, in adolescent–parent dyads, negative emotions, conflict and tensions increase between early and middle adolescence before declining again in late adolescence (for reviews see Meeus, 2016, 2018; Smetana & Rote, 2019). Conflict intensity increases in middle adolescence and then declines from middle to late adolescence (De Goede et al., 2009). Simultaneously, positive feelings towards parents, including closeness, warmth, support, intimacy and cohesion, decline across early and middle adolescence (Hadiwijaya et al., 2017; Smetana & Rote, 2019; Meeus, 2016, 2018). Thus, past research has generally presented a negative view of adolescent–parent relationship quality, particularly during early and middle adolescence.

For example, a longitudinal study conducted by Hadiwijaya and colleagues (2017) identified four main adolescent–parent relationship profiles. This research recruited two cohorts of adolescents at the beginning of the study: early to middle adolescents ($n = 919$, $M_{age} = 12.4$) and middle to late adolescents ($n = 392$, $M_{age} = 16.7$). A turbulent relationship type (involving low levels of support and high levels of negative interaction and parental power) was common in the early adolescent cohort and increased in frequency during early to middle adolescence. In the middle adolescent cohort, the turbulent profile was initially common but became less common over time. The harmonious type (involving high levels of support and low levels of power and negative interaction) was initially uncommon for early and middle adolescents, but adolescents generally moved into this profile by late adolescence. The authoritative type (involving high levels of support and power and moderate levels of negative interaction) and the uninvolved type (involving low levels of

parental support and power and high levels of negative interaction) were relatively uncommon, and both were mostly stable as youths did not tend to transition in or out of these profiles (Hadiwijaya et al., 2017). Overall, this research found that there were lower levels of support in early and middle adolescence as compared to late adolescence, whereas there were higher levels of parent control and conflict in early and middle adolescence as compared to late adolescence.

Similar findings were produced in longitudinal research by De Goede and colleagues (2009). This study was conducted over four years with 951 early adolescents ($M_{age} = 12.4$) and 390 middle adolescents ($M_{age} = 16.7$) recruited at the beginning of the study. Perceived parent support declined from early to middle adolescence and increased from middle to late adolescence for girls while stabilizing for boys. Conflict intensity temporarily increased during middle adolescence while parental power (relative power and dominance of parents) decreased from early to late adolescence. Again, this suggests that the generally quality of adolescent–parent relationships declines between early and middle adolescence before improving again by late adolescence.

To summarise, findings from longitudinal research have helped to illuminate consistent cohort-level trends regarding levels of support, conflict and power in adolescent–parent relationships (Hadiwijaya et al., 2017; Meeus, 2016; Smetana & Rote, 2019). Specifically, levels of support decline before increasing again between middle and late adolescence, whereas the opposite is true of conflict, that increases during early and middle adolescence before declining again. Concurrently, levels of parental power consistently decline across adolescence.

A number of perspectives, including maturational, psychoanalytic, and evolutionary theories have helped to explain these trends. In order for adolescents to achieve independence, self-sufficiency, and a sense of identity, adolescents push for more freedom

(particularly over personal issues such as how to spend their time) as well as more equality in their relationships, and also seek to build close relationships outside of the family. There is increased tension and negative interactions along with reduced closeness between parents and adolescents, as families negotiate these changing relationship dynamics. Evolutionary and cognitive theorists argue that this shift is facilitated by physical and cognitive changes, such as reduced impulse control during early and middle adolescence, and increased perspective taking and empathy during later adolescence (e.g. Crosnoe & Elder, 2002; Selman, 1980; Smith & Wild, 2019; L. Steinberg, 1989; Youniss & Smollar, 1985). Psychoanalytic theorists believe that these physical and cognitive changes are accompanied by subconscious processes known as "psychic disturbances" that facilitate ego development and individuation (e.g. Blos, 1979; Erikson, 1968). In sum, these perspectives have described adolescence as a time of significant change and tension in family relationships.

Adolescents are not the only cause of tension within families, as broader family dynamics interact with developmental changes to cause challenges in adolescent–parent relationships. Modified maturational models argue that social forces interact with adolescent cognitive, emotional and physical changes. For example, parents' developmental issues particularly in relation to careers, personal goals and future orientations can exacerbate the difficulty of facilitating their adolescents' development (Steinberg, 2001). If parents have found it difficult to address problems in their own lives, they may experience more tension when helping adolescents to navigate decisions about the future. Relatedly, parents' views about adolescence have been described as "self-fulfilling prophecies" as parents who believe that adolescents are likely to be highly difficult and to frequently be a cause of conflict, report experiencing more negative relationships with them (Collins, 1995). Adolescents and parents are also expected to experience more conflict, a) when the adolescent is a first born child, as parents are thought to hone their skill with a first-born child and are able to deal with second-

borns more constructively, b) in opposite sex dyads (such as in mother-son relationships as compared to mother-daughter), possibly because females are more likely than males to appease by submitting to the others wishes, which may mean that mother-daughter dyads are better able to compromise than other dyads, and c) when adolescents spend more time with older companions who encourage them to seek greater rights and privileges (for reviews see Laursen & Collins, 2009; Weymouth et al., 2016).

As such, past findings on the quality of adolescent–parent relationships has largely confirmed the popular assumption, held by many developmental theorists, that adolescent–parent relationships are characterized by tension and reduced closeness during early to middle adolescence (Meeus, 2006, 2009; Smetana & Rote, 2019). Yet, as will be explored in the following section, leading authors have claimed that qualitative and within-family research can provide a more nuanced and optimistic view of adolescent–parent relationship dynamics (Laursen & Collins, 2009; Smetana, 2001; Steinberg, 2001). These claims are supported by the work of attachment and social relations theorists, who suggest that parent-child dyads with supportive relationships and responsive communication styles, are likely to continue to have more positive relationships during adolescence. Researchers need to complement longitudinal research on levels of key relationship dynamics, with qualitative and multi-method studies on adolescents' perceptions of these relationship dynamics.

3.1.2 Limitations of Longitudinal Findings on Adolescent–Parent Relationship Dynamics

Longitudinal research has been valuable in assisting researchers to understand cohort level trends in key adolescent–parent relationship dynamics (closeness, conflict, and control). Even so, there are a number of compelling reasons to explore the quality of adolescent–parent relationships in more depth using a broader range of assessment tools and methodological approaches, particularly qualitative methodologies. For instance, although cohort level trends

exist, not all families experience equal declines in support and power or increases in conflict. One early study on the quality of adolescent–parent relationships, conducted between 1966 and 1972, found that 75% of adolescents reported having happy and pleasant relationships with their parents (Rutter et al., 1976). In another study, only 14% of young adolescents (around age 12) reported having turbulent relationships with parents involving high levels of conflict and low levels of support (Hadiwijaya et al., 2017). Although this number increased to 29% during middle adolescence (around age 16), the majority of adolescents had the same type of relationship with their parents from childhood throughout adolescence (Hadiwijaya et al., 2017).

In line with these findings, two seminal theoretical models have argued that patterns of communication and interdependence should remain stable in family relationships from childhood through adolescence. Specifically, attachment theory and social-relations theory can help explain how family dynamics may remain positive for many adolescent–parent dyads despite prior findings from research showing cohort level increases in conflict and declines in closeness.

Attachment theory, which was defined in chapter 2, posits that in close relationships—particularly relationships with parents—individuals hold underlying RS of each other, which are social cognitive structures derived from previous experiences of the other person as well as beliefs and feelings towards them (e.g. Baldwin, 1992; Bretherton & Munholland, 2008). For example, when parents and adolescents have a history of supportive and responsive interactions, they are likely to view each other's behaviours more positively. Adolescents who have a positive relational schema of their parent are likely to continue to have more close relationships with them, and view parenting behaviours as more supportive and caring, even when they disagree with them (Baldwin, 1992; Bretherton & Munholland, 2008). This is consistent with research showing that poor child-parent relationships

experience more tension and negative affect during adolescence, as compared to relationships that were supportive and positive during childhood (Laursen et al., 2010).

Likewise, social relations models argue that underlying patterns of communication will remain stable in adolescent–parent relationships even when adolescents desire more equality (e.g. Laursen & Bukowski, 1997; Reis et al., 2000). Adolescent–parent relationships naturally have unequal dynamics as parents are expected to provide the bulk of the emotional and instrumental support, and to have more control. Although adolescents seek to gain more independence and have more equal social relationships, those who are self-sufficient recognise that relationships with parents will not become egalitarian. Adolescents who are highly dependent on their parents are likely to seek more equal relationships as compared to other peers, to ensure that their heightened needs for emotional support are met (Laurens & Collins, 2009). For this reason, changes that do occur in adolescent–parent relationships, to allow adolescents more independence, occur slowly and underlying relationship dynamics mostly remain stable. Thus, while it is important to consider age-related trends, not all adolescent–parent dyads experience equal increases in conflict or equal declines in closeness. For this reason, it is important that researchers consider unique dynamics that are happening within families.

Another limitation of current knowledge on adolescent–parent relationship quality is the discrepancy between qualitative and quantitative findings on adolescent perspectives of conflict with parents. Results from longitudinal quantitative research suggest that adolescents perceive greater increases in conflict intensity across adolescence as compared to parents (Mastrotheodoros et al., 2020). Yet, findings from qualitative research indicate that adolescents are less likely to be negatively affected by disagreements than parents, as adolescents tend to believe that it is normal for their values and beliefs to diverge from their parents, and therefore do not generally experience high levels of negative affect during

disagreements with them (Laursen & Collins, 2009; Smetana, 2011; Smetana & Rote, 2019). By contrast, parents are more likely to experience feelings of hurt and anger during disagreements with adolescents, as they believe that their values and beliefs are being rejected. As such, there appears to be inconsistent findings coming from qualitative and quantitative research regarding how adolescents might experience negative interactions with their parents.

One possible explanation for this discrepancy could be that researchers have not fully explored how positive (such as, supportiveness and closeness) and negative aspects of the relationship (such as, conflict) are interrelated (Branje, 2018, 2019; De Goede, 2009). For example, although adolescents may report a higher number of negative interactions than parents, and might report experiencing more negative emotions, they may nevertheless view these conflicts as less serious than parents due to their unique beliefs and attitudes towards these interactions. Even when they disagree with parents' rule setting, which may be a cause for tension, adolescents view parent rule setting as legitimate, particularly when parents are also high in supportiveness (Branje, 2018, 2019; De Goede, 2009). Thus, to better understand adolescents' perceptions of their relationships with their parents, it is important that researchers explore how adolescents' attitudes and beliefs towards positive and negative interactions with their parents are integrated in their overall view of the relationship.

De Goede and colleagues (2009) longitudinal study highlights the importance of further exploring how adolescents' perceptions of parent supportiveness, power, and conflict are interrelated, as this study found a number of links between them. One such finding was that adolescent–parent relationships become more egalitarian during adolescence, as parent power decreases over time (De Goede et al., 2009). However, despite popular theories, conflict does not appear to have a large role in driving this change towards equality, as large increases in conflict were associated with relatively small decreases in parental power.

Between early and middle adolescence, the link between parent supportiveness and power becomes less strong, suggesting that while younger adolescents are compliant with dominant parents and see their rules as legitimate and supportive, older adolescents believe they should be given more autonomy and see overly controlling parents as unsupportive. Additionally, this study found a reciprocal and at times contradictory relationship between adolescent self-reports of parent supportiveness and power, as parents who were seen as highly dominant were also seen as less supportive, though parents who were highly supportive had more power over time. This research indicates that levels of support, conflict, and parent power in adolescent–parent relationships are interrelated although links between them can appear contradictory (De Goede et al., 2009).

Overall, along with examining trends in key relationships dynamics, it is important that researchers consider adolescents' unique beliefs, attitudes, and expectations during positive and negative interactions with their parents as well as how these dimensions influence each other. Longitudinal research has found that positive relationship dynamics, such as closeness and control, generally decline during early and middle adolescence while negative dynamics, like conflict, generally increase. Despite this, qualitative and within-family research has suggested that not all families are affected equally and that adolescents' existing attitudes and beliefs towards their parents can shape their perceptions of parent behaviours.

For this reason, more research is warranted to help better explain how individual adolescent attitudes are linked to parent behaviours and adolescent outcomes. The following section will outline two areas that have significantly advanced our understanding of the importance of the adolescent perspective as well as directions for further research in these areas. It is vital that researchers consider how parenting behaviours are perceived by

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adolescents, not just the level at which they exist, when examining links between adolescent wellbeing and the family environment.

3.2 Directions for Further Research

Understanding what behaviours are occurring within adolescent–parent relationships at a cohort level may be less important than examining how these behaviours are perceived by adolescents (e.g. De Los Reyes & Ohannessian, 2016; Hou et al., 2019; Laursen & Collins, 2009; Meeus, 2016; Steinberg, 2001). Two research questions that have been a popular focus of recent research have helped to further illustrate how adolescents' attitudes and behaviours, towards parents are linked to parent attitudes and behaviours, and developmental outcomes. As discussed in section 3.2.1, low levels of agreement between adolescent and parent perceptions of family relationships may be indicative of adaptive or maladaptive family dynamics, meaning that researchers and clinicians could glean important information from exploring these discrepancies rather than simply aggregating adolescent and parent reports. Section 3.2.2 will then explore evidence that adolescent affective attitudes towards parents may have a stronger influence on adolescent–parent relationship quality than parent attitudes and behaviours (e.g. Hale III et al., 2016; Nelemans et al., 2014). Given the well-established importance of family relationships during adolescence, these avenues of research are worthy of further exploration and will inform the original empirical studies reported in chapters 4 to 6.

3.2.1. Levels of Concordance Between Adolescent and Parent Reports of Parenting

The consistent finding of low concordance between adolescent and parent reports of parenting suggests that researchers should explore the unique information provided by adolescent and parent reports, rather than assuming that aggregate reports will be more robust. Two meta-analyses have found that the level of agreement between adolescent and parent reports of parenting is small to moderate (Hou et al., 2019; Korelitz & Garber, 2016).

This finding is consistent across parenting dimensions. Traditionally, researchers have attributed low levels of agreement between adolescent and parent reports of parenting to measurement error; however, a recent theoretical review by De Los Reyes & Ohannessian (2016) argued that these discrepancies are worthy of further exploration. Rather than reflecting measurement error, low levels of agreement between adolescent and parent reports of parenting may reflect important family dynamics and be linked to adolescent outcomes (De Los Reyes & Ohannessian, 2016).

Researchers have accepted for decades that parent-child agreement regarding child internalising and externalising symptoms is low. For instance, in a meta-analysis of 269 samples in 119 studies, Achenbach and colleagues (1987) found that the overall agreement between parents and children regarding emotional and behavioural problems was *r=.25*. These foundational findings were replicated in a more recent review by De Los Reyes and colleagues (2015) that also found a low to moderate parent-child correspondence regarding children's mental health symptoms ($r = .26$). In fact, the level of agreement found by these two reviews was almost identical despite decades of innovation to measurement techniques. The extent of agreement was moderated by type of problem being rated, with significantly higher correlations between parent and child reports of externalising problems ($r = .32$) as compared to internalising problems ($r = .26$). As such, the magnitude of the relationship between adolescent and parents' reports has remained low to moderate between these reviews, and across assessment tools, despite significant improvements in the measurement techniques available to assess developmental outcomes (Achenbach et al., 1987; De Los Reyes et al., 2015).

More recently, researchers have begun to explore agreement between adolescent and parent reports of parenting. A meta-analysis of 85 studies that included parents' and children's reports on the Children's Report of Parental Behaviour Inventory (CRPBI;

Schaefer, 1965) examined parent-child congruence on reports of acceptance, behavioural control and psychological control (Korelitz & Garber, 2016). This review found that the overall level of parent-child agreement was low to moderate. Parents and children were no more likely to agree regarding positive parenting dimensions (such as acceptance) than negative (such as psychological control). Parent-child agreement also did not appear to differ for mothers versus fathers. Results from this review suggest that parent-child concordance regarding parenting behaviours is consistently low (Korelitz & Garber, 2016).

Another meta-analysis by Hou and colleagues (2019) focused on adolescent populations. Again, this meta-analysis showed a small yet statistically significant correlation between adolescent and parent reported parenting ($r = .276$, 95%CI [.262, .290]). As expected, based on the theories outlined above, parents perceived parenting more positively than adolescents. Levels of adolescent–parent agreement were also higher for younger (versus older) and male (versus female) adolescents, for non-clinical parents (versus parents with internalising symptoms), in more individualistic societies, such as the United States (US), and in ethnic minority (versus White), low (versus high) SES, and non-intact (versus intact) families among US samples. Again, this review indicates that parents and adolescents consistently view parenting differently (Hou et al., 2019).

As outlined above, researchers and clinicians have traditionally considered reporter discrepancy as a problem, assuming that it reflects measurement error. This is largely due to accepted wisdom that clinical observations are more robust when a number of sources have agreed on the level of a phenomenon. Several rationales have been provided for exploring adolescent–parent report discordance in more detail, rather than continuing to dismiss this consistent finding. Levels of agreement between parent and child reports of psychological symptoms have been shown to be consistent between scales and across time, suggesting that adolescent–parent discrepancies are internally consistent and have good reliability over time

(De Los Reyes et al., 2010; De Los Reyes et al., 2015). Additionally, the measurement of parenting and psychosocial problems has been a central focus of developmental research over the past decades and research has been able to demonstrate the usefulness, reliability and validity of a range of measurement tools. As outlined above, two reviews, conducted 30 years apart, found an almost identical level of agreement between parents and children regarding child mental health symptoms, despite decades of improvements to assessment tools between these two papers (Achenbach et al., 1987; De Los Reyes et al., 2015). Taken together, these findings indicate that parent adolescent report discordance cannot be adequately explained by measurement error.

Relatedly, Laursen and Collins (2009) argue that even if adolescent and parent biases exist, which may threaten inter-rater reliability, they are not necessarily a bad thing. These authors argue that "self-reports are important for precisely the reason they are often shunned by researchers- namely, because they are biased by participant perceptions, expectations, and cognitions" (Laursen & Collins, 2009, p. 16). In other words, adolescents' and parents' interactions with each other are impacted by their unique experiences, personality traits, and attitudes. Again, when seeking to understand risk and protective factors in the family environment, it may be less important to establish 'robust' estimates of parenting behaviours, than to understand how these behaviours are perceived by individuals.

Finally, the Operations Triad Model (De Los Reyes & Ohannessian, 2016) proposes that adolescent–parent discordance in reports of parenting may reflect important dynamics within the adolescent and parent relationship that could be meaningfully linked to developmental outcomes. For example, it may be developmentally adaptive for parents and adolescents to disagree on levels of family cohesion, as parents are invested in maintaining a positive view of the family. By contrast, disagreement on levels of behavioural control could reflect lack of parent knowledge regarding adolescent activities and be linked to maladaptive

outcomes. Again, this model suggests that parents and adolescents should not be expected to converge in their perceptions of shared interactions. Differences between their reports may actually reflect important psychological processes that could in turn explain links between the family environment and adolescent wellbeing (De Los Reyes & Ohannessian, 2016).

Thus, the consistent finding that adolescent and parent reports of parenting and family functioning are only weakly related to each other, has created more reason for researchers to better understand how adolescent–parent interactions are perceived by individuals. Levels of concordance between parents and adolescents may reflect important family dynamics and be linked to developmental outcomes. Again, this speaks to the importance of valuing adolescents' perspectives rather than preferencing aggregated reports. Accordingly, Study 1, reported in Chapter 4, will use an individual participant meta-analysis and polynomial regression to robustly test the links between adolescent–parent report discordance and adolescent outcomes.

3.2.2 Bidirectional Models of the Relationship Between Adolescents' Perceptions of Parenting and Psychosocial Outcomes

Research on adolescent effect models has further demonstrated the importance of adolescent attitudes and behaviours. Historically, researchers have assumed that parents have more influence than adolescents in adolescent–parent relationships. Accordingly, research has predominantly treated parenting behaviours as the independent variable and adolescent outcomes as the dependent variable, assuming that parenting behaviours predict adolescent outcomes and not the other way around. Yet, adolescent–parent relationships are dyadic and both members are able to influence the quality and nature of interactions (Meeus, 2016, 2018). In fact, longitudinal studies have found more evidence for adolescent effects, meaning adolescent externalising and internalising problems are more strongly related to parent affective attitudes over time than the opposite (e.g. Branje et al., 2010; Rothenberg et al.,

2020; Waller et al., 2014). Moreover, adolescent perceptions of parenting behaviours are related over time to parents' own reports of their behaviour (Hale III et al., 2016; Nelemans et al., 2014). Again, notwithstanding the significant advancements in our understanding of adolescent–parent relationship dynamics which has been gained from past research, there is a need for researchers to examine adolescent perspectives in more depth in future research.

Three adolescent-effect models have been supported by past research. Firstly, adolescent psychopathology leads to the erosion of adolescent–parent relationships across adolescence, while the reverse pattern is less well supported. Longitudinal research has shown that adolescent–parent relationships are negatively impacted over time by a range of adolescent outcomes including aggression, delinquency, depression, generalized anxiety, internalising and externalising problems, intoxication, poor self-esteem, school maladjustment, separation anxiety and substance use (Meeus, 2016, 2018).

For example, Rothenberg and colleagues (2020) conducted research with 1,315 dyads across late childhood and early adolescence over 6 years (between ages 8 and 13) that explored bidirectional links between aggregate adolescent and parent reports of parental warmth and control and child externalising and internalising behaviours. This research used data from 12 cultural groups in 9 countries (China, Colombia, Italy, Jordan, Phillipines, Sweden, Thailand and the US), in order to explore culture specific effects. Findings showed small to moderate child-effects across cultures and mothers and fathers, meaning that levels of adolescent externalising and internalising problems strongly predicted levels of parental warmth and control over time. Regarding parenting effects, although there were some significant links between mother and father behaviours and adolescent outcomes, they were less frequent, were not found for all ages, and were often limited to specific cultural groups. While child effects were small to moderate in this study, the authors nevertheless concluded

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that child behaviours impact parenting behaviours more consistently than the reverse (Rothenberg et al., 2020).

The second adolescent-effect model suggests that adolescent psychopathology prevents adolescent independence from parents across adolescence (Werner et al., 2016). Parents are reluctant to grant adolescents autonomy and independence when they demonstrate problems such as aggression, anger dysregulation, depression, generalized and separation anxiety, and substance use. For example, Werner and colleagues (2016) studied links between adolescent depressive symptoms and adolescent reports of mother psychological control in a sample of 497 adolescents (M_{age} T_1 = 13.03) and their mothers over six years. Findings showed that depressive symptoms predicted psychological control for boys and early adolescent girls (Werner et al., 2016).

More recently, Nelemans and colleagues (2020) conducted a 4-year longitudinal study with 819 adolescents (M_{age} T_1 = 13.4) and their mothers, examining both between and within family links between social anxiety symptoms and parent psychological control and autonomy support. At the between-family level, adolescent social anxiety symptoms predicted higher adolescent and mother reported psychological control and lower mother-reported autonomy support. At the within-family level however, mothers reported lower psychological control and higher autonomy support after periods with higher adolescent social anxiety symptoms. When adolescents consistently report higher levels of social anxiety relative to their cohort, there is likely to be a stable pattern of higher parent psychological control and lower autonomy support relative to other families. By contrast, when adolescents, who have previously reported lower levels of social anxiety relative to their cohort, experience a period of increased symptoms, this is likely to be met by reduced psychological control and increased autonomy support. In other words, emerging research supports a causal

link between adolescent social anxiety and parenting, however this relationship is complex and differs at the between- and within-family levels (Nelemans et al., 2020).

Finally, an additional adolescent-effect model posits that parental influence is limited by adolescents' striving for privacy during early and middle adolescence. Over time, parental interference has been found to be counterproductive as adolescents are likely to be more secret when they perceive that their parents are trying to exert too much influence. For example, a three-year study by Hawk and colleagues (2013) found that high adolescent (M_{age} $T_1 = 13$) reports of parent invasion predicted lower father and mother reported knowledge 1 year later, and that this relationship was mediated by increased adolescent secrecy. Another study found that maternal prohibition of friendships led to an increase of contact with deviant peers that, in turn, led to an increase of adolescent delinquency (Keijsers & Laird, 2014). In combination, these findings suggest that when adolescents' feel that their autonomy is being threatened, they respond with secrecy, delinquency, and increased contact with deviant peers (Hawk et al., 2013; Keijsers & Laird, 2014).

Although parent effects do exist, the support for these models is less strong as compared to adolescent-effects models. For example, Nelemans and colleagues (2014) conducted a 6-year longitudinal study on the direction of effects between mother reports of maternal criticism and adolescent depressive and Generalized Anxiety Disorder (GAD) symptoms. They also looked at the mediating effect of adolescents' perceptions of maternal criticism. Results showed that stronger adolescent effects (adolescent psychopathology predicting maternal criticism) than parent effects (maternal criticism predicting adolescent psychopathology) for both depressive and GAD symptoms, also finding that adolescent perceived criticism significantly mediated these effects (Nelemans et al., 2014).

A similar study investigated mother and adolescent ratings of expressed emotion and adolescent internalising and externalising symptoms over six years in a sample of 497

adolescents (M_{age} T_1 = 13) and their mothers (Hale III et al., 2016). This study found that both internalising and externalising symptoms predicted adolescents' perceptions and mother self-reports of maternal criticism over time. Findings also demonstrated that a psychopathological-effect model (wherein adolescents' symptoms predict maternal criticism) fit the data better than an expressed emotion-effect model (wherein maternal criticism predicts adolescents' symptoms). In other words, longitudinal research examining the direction of the relationship between adolescent psychopathology and parenting behaviours suggests that parent behaviours are more heavily influenced by adolescent behaviours than the reverse (Hale III et al., 2016).

Yet research has also found that factors such as age and behaviour/attitude dimension can increase the influence of parent behaviours and attitudes, such that parents are likely to have more influence during early and middle adolescence (compared to late) and over levels of cognitive empathy or conflict resolution style as compared to other behaviours/attitudes. In their review, Meeus (2018) found that parent effects are strongest in early and middle adolescence. During these periods, parents can influence psychosocial development through the transmission of attitudes and behaviours. For example, van Lissa and colleagues (2014) found that maternal cognitive empathy preceded and affected levels of cognitive empathy in girls from early to late adolescence. Two studies have also found that parental attitudes, including cultural conservatism and tolerance for alternative lifestyles, preceded and drove attitudes of adolescents and emerging adults (ter Bogt et al., 2005; Vollebergh et al., 2001). Furthermore, conflict resolution styles in adolescent–parent dyads predicts adolescent conflict resolutions styles with parents and peers (van Doorn et al., 2007; van Doorn et al., 2011). During late adolescence this process becomes bidirectional, meaning youth attitudes and conflict styles also impact parents, likely due to maturation and increased stability of adolescent values and behaviours (van Doorn et al., 2011). This suggests that while

adolescent effects may be stronger and more frequent than parent effects, certain factors can increase the level of influence which parents have over adolescent outcomes.

There are a number of theoretical reasons why adolescents may exert more influence over family dynamics than parents (Meeus, 2016, 2018). First, as adolescents become more mature and independent, they may be less affected by negative relationships with parents, as compared to parents. As outlined above, parents are more invested in maintaining family cohesion and closeness, which may explain why they are more impacted by negative relationship dynamics.

Second, adolescent–parent relationship dynamics undergo significant changes during adolescence, as adolescents seek increased independence. Adolescent psychopathology is likely to significantly change their behaviours during negotiations for more autonomy. For example, adolescents who spend time with older or deviant friends, may expect more extreme levels of autonomy from parents as compared to peers (Meeus, 2016, 2018). Relatedly, cognitive biases associated with internalising problems may cause adolescents to perceive parenting behaviours more negatively, which in turn leads to more negative interactions with parents. The negative triad theory posits that internalising problems, particularly depressive symptoms, cause people to make more negative attributions about themselves, others and the world (Beck, 1970). Meanwhile, Patterson's coercion model (1982) argues that there is a reciprocal relationship between critical adolescent and parent affective attitudes and behaviours. Adolescents' critical attitudes towards parents may lead to more negative interactions, eliciting more negative attitudes and behaviours from parents. This is subsequently linked to increased adolescent internalising and externalising problems (Patterson, 1982; Snyder et al., 2003).

A third explanation for the prevalence of adolescent effects is provided by current models of behavioural control, that frame parental control as an inherently transactional

process (Kerr & Stattin, 2000). Parents' ability to regulate or supervise adolescents' activities is inextricably linked to their level of knowledge regarding adolescents' activities and this knowledge is dependent on adolescent disclosure of activities. For this reason, parents who are able to build more supportive relationships and stronger communication with adolescents, are able to exert more control (Kerr & Stattin, 2000). This further explains why levels of parent control are inextricably linked to adolescents' behaviours, particularly disclosure and rule-breaking behaviour.

In sum, despite a popular assumption that parents exert more influence over adolescent–parent relationships than adolescents, research has found that adolescent effects are generally stronger and more frequent than parent effects (e.g. Rothenberg et al., 2020; Nelemans et al., 2014). In other words, adolescent psychopathology influences parenting behaviour directly and through adolescent perceptions of parent behaviours to a greater extent than the reverse. Although relatively new, these findings have created an impetus for future research to better understand the influence of adolescent behaviours and attitudes on adolescent–parent relationship dynamics.

Given these findings, it is important to observe that adolescent perspectives on relationships with parents are often evaluated using self-report questionnaires that may not be developmentally appropriate (as they are designed to assess both children's and adolescent's views on relationships despite important changes to individuals needs between these periods; Laursen & Collins, 2009; Steinberg, 2001). Researchers are currently limited in their ability to conduct multi-method assessments by the lack of observational or interview tools available that can feasibly be used with large cohorts to assess adolescent perspectives. A review of measurement tools that assess both adolescents' and parents' perspectives on the family environment (Alderfer et al., 2008) revealed only one non-questionnaire method of assessing adolescents' affective attitudes. Namely, The Constraining and Enabling Coding System

(Hauser et al., n.d.), which is an unpublished observational coding system and examines interactions that impede and promote adolescent development. As will be explored in Chapter 4, a few more observational coding systems have since been developed; however, these often assess adolescent perceptions of parent behaviour (as opposed to adolescent attitudes regarding the adolescent–parent relationship) and are limited in scope. In order to properly assess longitudinal and bidirectional relationships between adolescents' and parents' attitudes and behaviours, researchers need to develop a diverse range of observational and interview assessment tools, which can feasibly be used to assess adolescent perspectives on family dynamics in longitudinal research.

For this reason, Study 2 (reported in chapter 5) will explore the usefulness of a novel method of coding adolescent speech samples (which combines interview and observational assessment techniques), in assessing adolescent affective attitudes towards parents. Meanwhile, Study 3 (reported in chapter 6) will qualitatively analyse the same speech samples to identify common themes in adolescent narratives about their relationships with their parents. Taken together, these studies will provide further information about adolescent attitudes, beliefs, and expectations towards their parents and improve the ability of researchers to examine how adolescent perceptions of parents are linked to adolescent and parent attitudes and behaviours over time.

3.3 Summary and Overview

Taken together, the empirical findings and theoretical perspectives outlined in this chapter provide compelling evidence that adolescent–parent relationships fundamentally shape adolescent developmental outcomes. Despite this, current knowledge of the nature and influence of adolescent–parent relationships, can be strengthened by further exploring dyadic processes in these relationships, using a wider variety of assessment and methodological techniques. This chapter has outlined two areas of research which may help to further

illuminate the interconnectedness of adolescent and parent behaviours and attitudes, and further outline the importance of exploring individuals' family processes as opposed to cohort level trends in adolescent–parent relationship dynamics. This research has proposed that adolescent–parent report discrepancies may reflect meaningful family dynamics and that adolescent behaviours may have more influence on parent behaviours and attitudes than the reverse. Further developments in these areas of research could greatly improve current knowledge of the nature and importance of adolescent–parent relationships.

The research reported in chapters 4 to 6 further explore how parenting is perceived by adolescents and how adolescent perceptions of parenting are uniquely linked to adolescent outcomes. Specifically, an IPD meta-analysis (chapter 4) examined how adolescent and parent report discordance is linked to adolescent outcomes, to explore whether these discrepancies reflect maladaptive dynamics in the family environment. Quantitative (chapter 5) and qualitative (chapter 6) analysis of adolescent narratives regarding relationships with parents were used to further examine how adolescent–parent relationships are perceived by adolescents and what their attitudes towards parents can reveal about adaptive family dynamics.

Chapter 4

Study 1: Links Between Adolescent–Parent Report Discordance on Parenting and Relationship Quality and Adolescent Outcomes: An IPD Meta-Analysis

Low levels of concordance between adolescent and parent reports of parenting and relationship quality are ubiquitous. The modified Operations Triad Model posits that levels of discordance on reports of parenting and relationship dimensions may reflect maladaptive family processes and be related to adolescent outcomes, however findings in this area have been mixed. This study used an IPD meta-analytic approach and gold standard statistical methods (including polynomial regression) to comprehensively test hypothesized links between adolescent–parent report discordance and developmental outcomes, with a large sample. IPD from 26 datasets, including 12,400 adolescents (M_{age} = 14.16, 54.02% female) and their parents (14,600 dyads; 77.96% mothers) was used to conduct a one-stage analysis of interaction effects as well as the possible moderating effect of parenting and relationship dimension, outcome dimension, age, gender (adolescent and parent), and country. These results were compared with a two-stage multivariate meta-analytic analysis. Our findings showed a non-significant relationship between the adolescent–parent report interaction term and adolescent outcomes using the one-stage and two-stage approach. This effect was moderated by parenting and relationship dimension, outcome dimension, and reporter of adolescent outcome. Even so, findings from subgroup analyses showed that there was a non-significant relationship between the adolescent–parent report interaction term and adolescent outcomes across parenting and relationship dimensions, outcome dimensions, and reporter of outcome.

4.1 Introduction

Informant discrepancy has traditionally been framed as a problem, due to accepted wisdom that observations are more robust when multiple reporters agree on levels of a phenomenon. Yet, adolescent and parent report discordance on parenting and the overall quality of their relationship also has the potential to enhance our understanding of family dynamics, as this discordance may be attributable to developmental changes in family relationships and be linked to both adaptive and maladaptive adolescent outcomes (De Los Reyes & Ohannessian, 2016). Understanding the significance of report discordance may also improve the usefulness of multi-rater assessments in therapeutic settings and assist clinicians to identify targets for intervention. Researchers should explore the potential importance of adolescent–parent report discordance rather than continuing to ascribe it to measurement error.

To date, hypothesized relationships between levels of adolescent–parent discordance and adolescent outcomes have received mixed empirical support. However, these inconsistent results may be due to moderator effects that have not yet been identified and may also be caused by the use of flawed statistical techniques, such as difference scores (De Los Reyes & Ohannessian, 2016; Hou et al., 2019). Although past meta-analyses have examined the level of discordance between adolescent and parent reports of parenting, there has only been one qualitative review of the relationship between adolescent–parent discordance and adolescent outcomes because of methodological limitations of past research (Hou et al., 2019). Sophisticated meta-analytic techniques (including the IPD meta-analytic approach) are able to synthesize findings from past research, despite these limitations, and to comprehensively test potential moderator effects (Stewart et al., 2012). IPD meta-analysis may therefore help to clarify important relationships between adolescent–parent discordance and adolescent wellbeing.

4.1.1 Adolescent–Parent Discordance on Reports of Parenting and the Adolescent–Parent Relationship and Links to Adolescent Outcomes

An increasing number of studies have demonstrated that adolescents and parents often provide discordant reports on family functioning variables. Moreover, such discordance may reflect more than measurement errors because it can be systematically predicted by various factors (such as, informant and family characteristics) and be linked to adolescent outcomes (Hou et al., 2019; Korelitz & Garber, 2016). According to the modified Operations Triad Model (De Los Reyes & Ohannessian, 2016), concordance and discordance in adolescents' and parents' reports of parenting and their relationship may reflect meaningful aspects of family functioning and thus have important implications for adolescent outcomes.

This model proposes that adolescent–parent concordance on high levels of positive parenting and relationship dimensions (such as, warmth) may indicate protective factors in the family environment and be linked to adaptive adolescent outcomes. In contrast, adolescent–parent concordance on high levels of negative parenting and relationship dimensions (such as, psychological control) may indicate that the negative relationship dynamics have existed at a high level for an extended period of time and across a number of contexts and situations, which could be detrimental for adolescent wellbeing (De Los Reyes & Ohannessian, 2016). There may also be nonlinear relationships between levels of parenting and relationship dynamics and adolescent outcomes such that concordance at extreme levels may relate to worse adolescent outcomes than concordance at less extreme levels. For example, adolescent–parent agreement on extremely (vs. moderately) positive parenting could indicate enmeshed relationships, characterized by extreme emotional connectedness, loyalty, and lack of autonomy, and be linked to worse adolescent outcomes (Barrera et al., 2011).

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Regarding the interpretation of discordance between adolescents' and parents' reports of parenting and their relationship, the model proposes two seemly competing hypotheses: the *adaptive* and *maladaptive* hypothesis. The *adaptive* hypothesis proposes that adolescent–parent discordance may be part of the normative developmental process related to adolescents' increasing need for autonomy and independence (Welsh et al., 1998). Thus, adolescent–parent discordance may be adaptive for adolescent development. The *maladaptive* hypothesis proposes that adolescent–parent discordance may reflect certain family functioning problems, for example, poor communication (Ehrlich et al., 2015; Maurizi et al., 2012). Thus, adolescent–parent discordance may be associated with maladaptive adolescent outcomes. Whether adolescent–parent discordance is adaptive or maladaptive may depend on various conditions such as developmental period (De Los Reyes & Ohannessian, 2016).

There is an increasing but small number of studies that have directly examined how adolescent–parent discordance in reports of parenting and relationship quality are related to adolescent outcomes. These empirical studies have shown some evidence to support the modified Operations Triad Model (De Los Reyes & Ohannessian, 2016), yet there is considerable inconsistency among findings. Findings tend to vary across studies with different sample characteristics and statistical methods. To provide a more comprehensive review, a meta-analysis using the most appropriate methods to test potential moderators of the relationship between adolescent–parent discordance in reports of parenting and adolescent outcomes is urgently needed. No published meta-analytic study has directly tested these moderator effects to date. The only two meta-analytic studies on adolescent–parent discordance in reports of parenting and relationship quality focused on the extent of adolescent–parent discordance and its predictors rather than potential relationships with adolescent outcomes (Hou et al., 2019; Korelitz & Garber, 2016).

The Hou and colleagues (2019) meta-analysis did provide a qualitative synthesis of studies examining how adolescent–parent discordance in reports of parenting and relationship quality relate to adolescent outcomes and discussed main approaches and findings. They acknowledged the challenge of conducting a traditional meta-analysis on this topic given the various methodological issues in available studies, and called for an IPD meta-analysis, involving the analysis of raw data with the most recommended statistical methods, to examine adolescent–parent discordance.

Heeding this call, the current study aims to robustly analyse how adolescent–parent discordance in reports of parenting and relationship quality relate to adolescent outcomes, and potential moderators of this relationship, using polynomial regression and IPD meta-analytic techniques as recommended. In the following sections, we will first discuss potential moderators of the link between adolescent–parent discordance in reports of parenting and relationship quality and adolescent outcomes. Then, we will discuss methodological issues in existing studies and the advantages of our approach.

4.1.2 Potential Moderators on the Links Between Adolescent–Parent Discordance in Reports of Parenting and Relationship Quality and Adolescent Outcomes

Prior studies have demonstrated that parenting and relationship dimension and informant, family, or sample characteristics may predict the extent of adolescent–parent discordance (Hou et al., 2019; Korelitz & Garber, 2016). For example, levels of adolescent–parent discordance have been shown to be higher for younger (versus older) and male (versus female) adolescents, for non-clinical parents (versus parents with internalising symptoms), in more individualistic societies such as the U.S., and in ethnic minority (versus White), low (versus high) SES, and non-intact (versus intact) families among U.S. samples (Hou et al., 2019). The current study moves beyond these prior studies by testing whether the link between adolescent–parent discordance in reports of parenting and relationship quality and

adolescent outcomes varies across parenting and relationship dimensions, outcome dimensions, adolescent age, adolescent and parent gender, country of residence, and reporter of adolescent outcomes.

4.1.2.1 Parenting and relationship dimensions

Popular models of parenting argue that parenting behaviours vary along two main dimensions; namely, control and warmth (Goldin, 1969; Martin, 1975; Rohner & Rohner, 1981). Parent control includes adaptive attempts to influence adolescent behaviour through knowledge of adolescent activities, monitoring, and clear communication of expectations (referred to as behavioural control; Kerr et al., 2000, 2012) as well as manipulative behaviours that may induce shame, guilt, and separation anxiety in adolescents including love withdrawal and harsh punishment (known as psychological control; Kerr et al., 2000, 2012). Higher levels of parent behavioural control have been linked to more adaptive adolescent outcomes when parents also demonstrate high levels of warmth (parent behaviours characterised by supportiveness, responsiveness, and acceptance; Kerr, 2012; Smetana & Rote, 2019). By contrast, psychological control behaviours threaten adolescents' need for acceptance and support from parents and are linked to maladaptive outcomes (Smetana & Rote, 2019).

Adolescent outcomes are also linked to the overall quality of the adolescent–parent relationship and the family environment. Adolescents are more likely to communicate with parents about their activities and to see parent authority as more legitimate when they perceive more closeness and lower conflict with parents (Branstetter & Furman, 2013; Mcgue et al., 2005). For this reason, developmental researchers have looked at the overall quality of dyadic adolescent–parent interactions (such as time spent together or conflict) and general family functioning (including family cohesion), alongside parenting behaviours when

exploring links between adolescent–parent relationships and adolescent outcomes (Smetana & Rote, 2019).

The strength of the relationship between adolescent–parent discordance and adolescent outcomes is likely to vary between parenting dimensions (warmth, behavioural control or psychological control), relationship quality, and general family functioning. By their nature, when reporting on parental warmth, overall relationship quality, or general family functioning adolescents and parents are reflecting on shared interactions. As such, discordance on these dimensions may suggest poor adolescent–parent communication and attachment, indicating maladaptive family dynamics (Ehrlich et al., 2015; Reidler & Swenson, 2012). Conversely, when reporting on parent control, parents and adolescents are more likely to reflect on different scenarios (De Los Reyes et al., 2013). For example, when mothers attempt to learn about adolescents' whereabouts during dinner conversations, they may see this as an example of parent solicitation, whereas adolescents may not recognize these conversations as instances of parents' acquiring knowledge about their whereabouts and activities. Overall, discordance on adolescent–parent reports of parent control (either behavioural control or psychological control) should be less strongly related to adolescent outcomes than discordance on parental warmth and relationship quality, as discordance on shared interactions is more likely to reflect maladaptive family dynamics (De Los Reyes et al., 2013; Ehrlich et al., 2011; Reidler & Swenson, 2012).

4.1.2.2 Adolescent Outcome Dimensions

Socio-emotional outcomes, including mood, self-efficacy, or social competence, and behavioural outcomes, such as aggression, drug and alcohol use, or rule-breaking, are differentially related to adolescent–parent parenting and relationship dimensions (McLeod et al., 2007a, 2007b). Yet, there is a lack of theoretical and empirical study on the potential moderating effect of outcome dimension. Extant studies have primarily focused on

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adolescent socioemotional problems (such as, depressive symptoms, internalising problems; Leung et al., 2016; Nelemans et al., 2016; Reidler & Swenson, 2012) and behaviour problems (such as, delinquent or risk behaviours; Abar et al., 2015; De Los Reyes et al., 2010). There are also a few studies involving academic outcomes (e.g., Hou et al., 2018; Kim et al., 2013). Thus, the current study explored whether the association between adolescent–parent discordance and adolescent outcomes differed across these three dimensions of adolescent outcomes: socioemotional, behavioural, and academic. The current study also explored whether high levels of adolescent–parent discordance are more strongly linked to adaptive or maladaptive outcomes.

4.1.2.3 Age

Developmental theorists posit that early and middle adolescents (10 to 13 and 14 to 17 respectively; Smetana & Rote, 2019) have different quality relationships with parents, than late adolescents (18 to 20; Smetana & Rote, 2019). During early adolescence, relationships with parents are characterized by increased conflict and decreased closeness as individuals are seeking more independence which parents are reluctant to provide. By late adolescence individuals are expected to have developed more complex interpersonal skills, including empathy and perspective-taking, which facilitate repairing relationships with parents and regaining closeness. High levels of adolescent–parent discordance during early adolescence may be a result of an adaptive developmental process, such as separating from parents, but may indicate a maladaptive failure to build more harmonious relationships with parents during later adolescence. Thus, discordance is likely to be more strongly related to maladaptive adolescent outcomes during later adolescence as opposed to early or middle (Smetana & Rote, 2019).

4.1.2.4 Gender

Adolescent and parent gender are also expected to moderate the relationship between adolescent–parent report discordance and adolescent outcomes. Adolescent females are generally more flexible and responsive to others' needs, as compared to males, meaning that they are more accepting of parents' views and less likely to engage in highly aversive conflicts with them (Konrad, 2016). Thus, high levels of discordance between female adolescents and parents may be more maladaptive than high discordance between male-adolescents and parents. Likewise, mothers are expected to take more responsibility for maintaining family cohesion and providing positive emotional support than fathers (Steinberg, 2001). Thus, when mothers have a more negative view of parental warmth and overall family functioning than adolescents, this discrepancy may be more strongly linked to adolescent outcomes as compared to when fathers see family relationships more negatively (Konrad, 2016; Steinberg, 2001).

4.1.2.5 Country of Residence

In individualistic countries, such as the US, adolescents are encouraged to seek independence, and a certain level of disagreement with parents is seen as a natural part of this process (Kagitcibasi, 2005). By contrast, in collectivistic societies adolescents are expected to be more dependent on family, and there is a stronger emphasis on respect for parent authority. As such, adolescent–parent discordance is expected to be more strongly linked to maladaptive adolescent outcomes in collectivistic than individualistic societies (Kagitcibasi, 2005).

4.1.2.6 Reporter of Outcome

When exploring the relationship between two constructs, method bias is introduced if there are too many similarities regarding how these constructs have been measured, for example if the same person has reported on both constructs, or if both constructs have been

measured using self-report questionnaires (for a review see Podsakoff et al., 2011). In these instances, the covariance between the two constructs may be partly attributable to the fact that they share the same method of measurement. In the current study, all outcome variables were assessed using self-report measures from adolescents and parents, meaning that there was a high level of shared method variance between the independent and dependent terms. Importantly, interaction effect cannot be inflated by common method variance, however they can be severely deflated (Podsakoff et al., 2011). By exploring the moderating effect of reporter of outcome, it will be possible to compare adolescent and parent reports of outcome to aggregated reports (as adolescent and parent reports of parenting were not aggregated). Consequently, exploring the moderating effect of reporter of outcome can test the extent to which interaction effects may have been deflated by criterion contamination effects.

4.1.3 Methodological Limitations of Current Research on Adolescent–Parent Discordance

Along with exploring potential moderator effects, it is important that researchers address methodological limitations of past studies to better understand how adolescent–parent discordance is linked to developmental outcomes. Researchers have traditionally used difference scores, by subtracting adolescents' scores on reports of parenting and relationship quality measures from parents' score, to examine relationships between informant discrepancies and adolescent outcomes (e.g. McCauley et al., 2016; Yeung, 2016). Yet, research has shown that the correlation between difference scores and adolescent outcomes reflects the relationship of adolescent outcomes to adolescent and parent reports rather than to informant discrepancies (Laird & De Los Reyes, 2013; Laird & Weems, 2011). The correlation between difference scores and the outcome variables is determined by the variances of the two components (such as adolescent and parent scores) along with the correlation of the two components to the outcome variable (Laird & Weems, 2011).

For this reason, Laird and De Los Reyes (2013) advocated for the use of interaction models, particularly polynomial regression models in future research on adolescent–parent discordance. Interaction models include both adolescent and parent reports of parenting and relationship quality as well as a term that represents the interaction of the two. Often polynomial models also include higher order terms to account for non-linear relationships (such as polynomial regression; e.g. Laird & De Los Reyes, 2013). In their review, Hou and colleagues (2019) found that the difference score approach was the method most commonly used ($n = 25$ out of 36) to examine the relationship between adolescent–parent discordance and adolescent outcomes. This suggests that much of the current research regarding the significance of adolescent–parent discordance is methodologically flawed.

In sum, research on adolescent–parent discordance has found inconsistent support for the modified Operations Triad Model (De Los Reyes & Ohannessian, 2016) preventing researchers and clinicians from identifying potential links between adolescent–parent discordance and important family dynamics. Moderator effects and methodological limitations of past research may help to explain these mixed findings. The IPD meta-analytic approach is a robust and well-supported method of synthesizing research and can be used to to comprehensively test the relationship of adolescent–parent discordance to adolescent outcomes along with potential moderators, despite methodological limitations of past research.

4.1.4 Individual Participant Data Meta-Analyses

The IPD meta-analytic approach can provide an overview of the relationship between adolescent–parent discordance and developmental outcomes, using robust statistical methods such as polynomial regression and RSA (Burke et al., 2017; Stewart et al., 2012). IPD meta-analysis involves the collection, combination, and re-analyses of "raw" participant data from

relevant past research and is considered to be the "gold-standard" approach to evidence synthesis (Stewart et al., 2012).

There are two approaches used to conduct IPD meta-analyses. A two-stage approach involves generating study-level summary statistics in stage one before conducting a meta-analysis of aggregate data in stage two (Stewart et al., 2012). A one-stage approach involves combining all individual level data in a single meta-analysis based on a regression model stratified by trial (such as polynomial regression). The one-stage approach substantially improves the statistical power of the meta-analyses, as sample size is based on the total number of individual participants included in the review rather than the number of studies included (Riley et al., 2020). Moreover, the one-stage approach enables analyses between well-defined groups of participants such as between older and younger adolescents. In conventional meta-analyses, it is often difficult to extract sufficient compatible data to analyse potential moderators. Finally, because of the ability to combine raw data, both IPD approaches allow for the synthesis of research findings when studies have used different statistical methods (Riley et al., 2020).

In sum, the IPD approach has the potential to provide a comprehensive overview of the hypothesized relationships between informant discrepancies and developmental outcomes as well as potential moderators, using robust techniques including polynomial regression. This will substantially improve understanding of the family dynamics underlying adolescent–parent discordance, and the potential relationship of this discordance to adolescent outcomes.

4.1.5 Current Study

There are strong theoretical reasons to explore relationships between adolescent–parent discordance and adolescent outcomes, but empirical findings are mixed and tend to vary across studies with different sample characteristics and statistical methods (De Los Reyes & Ohannessian, 2016; Hou et al., 2019). A robust meta-analysis is urgently needed to

examine the relationships between adolescent–parent discordance and adolescent outcomes and resolve limitations of past research. This study adopted cutting-edge methodologies that are strongly recommended by leading researchers—IPD meta-analyses and polynomial regression— to explore the outcomes associated with levels of adolescent–parent concordance and discordance in reports of parenting and relationship dimensions. Specifically, this research had the following objectives: 1) to obtain a robust estimate of the relationship between levels of adolescent–parent concordance and adolescent outcomes, 2) to explore whether parenting and relationship dimensions vary in their relationship to adolescent outcomes, 3) as well as whether informant discrepancies are differentially related to outcomes dimensions, and 4) to examine potential moderators of the relationship between adolescent and parent discordance and outcomes. This study will significantly advance current understanding of the relationships between adolescent–parent concordance on reports of parenting and relationship dimensions and adolescent outcomes by using IPD to conduct a robust analysis of these relationships and potential moderators.

4.2 Methods

4.2.1 Literature Search and Screening

4.2.1.1 Inclusion of Relevant Articles and Data Collection

The initial literature searches took place between 2016 and 2017 and the papers that were compiled during this stage were included in a previous meta-analysis (the search strategy is reported in detail in Hou et al, 2019). Another supplemental search was conducted in March 2019. The search terms "parenting" and "adolescen*" were used to search the PsycINFO database for relevant papers published in peer-reviewed journals since 2016, and the ProQuest Dissertations & These Global database for unpublished studies since 2016. Articles that were included in current the study were empirical studies (criteria 1), measuring at least one aspect of the adolescent–parent relationship (criteria 2), and at least one

adolescent outcome (criteria 3), using adolescents aged 10 to 20 years (criteria 4), and that measured both adolescents' and parents' reports on at least one common aspect of the adolescent–parent relationship at the same wave (criteria 5). Papers did not need to have looked at adolescent–parent discordance as we wanted to ensure that we were able to collect a large amount of datasets.

Figure 4.1 presents a flowchart of the article identification and data collection process. A total of 11,583 unique papers were identified in searches reported in Hou et al. (2019). After abstract screening 8,954 papers were excluded based on the inclusion criteria, leaving 2,629 papers. A total of 1,138 papers were found in the supplemental search, of which 1,071 papers were excluded after abstract screening leaving 67 new research articles. In total, 2,696 articles remained after duplicates were removed and we screened the full-text of these articles to exclude those did not meet all inclusion criteria ($n = 2,320$). There were 376 papers that met all inclusion criteria.

After accounting for researchers who had written several articles and for researchers who could not be contacted (as there were unpublished studies that did not provide contact information, had not provided relevant contact information, or had moved workplaces, and could not be found using a Google search), a total list of 209 researchers were identified. We emailed these researchers to request de-identified raw datasets that included parent and adolescent reports of an adolescent–parent relationship outcome, a report of an adolescent outcome, and any variables that described demographic statistics of interest (for example, age range of adolescents in the study, adolescent or parent gender, or the country where data was collected). Variables that had not been used in the corresponding article, but were relevant to the current meta-analyses, were included in order to reduce bias (Stewart et al., 2012). When contacted researchers did not respond to our initial email in four weeks a follow-up email was sent.

Figure 4.1

Flowchart of article screening and selection and data collection

| Identification | *September 2016 - October 2017*
Abstracts screened (*n*=11,583)
Abstracts excluded (*n*=8,954) | *March 2019*
Abstracts screened (*n*=1,138)
Abstracts excluded (*n*=1,071) |

Screening

2,696 studies after duplicates removed

Eligibility

Full text of papers reviewed for eligibility (*n*=2,696) → Papers not meeting eligibility criteria (*n*=2,320)

Obtaining Data

Studies for which IPD were sought (*n*=376)

Authors who were not contacted (n=168)
Articles written by authors that had already been contacted (n=90)
Studies were PhD theses and authors could not be contacted (n=43)
Authors had moved workplace or had not provided contact information and could not be found using a Google search (n=35)

Eligible authors from whom IPD were sought (*n*=209)

Available Data

Datasets provided (*n* = 23)
Authors who provided raw datasets (n = 19; n_{datasets} = 21)
Authors who provided information about accessing public databases (n = 3; n_{datasets} = 4)
Additional open-source database found through exploring researcher profiles (*n_{datasets}* = 1)

Authors who did not provide IPD (*n* = 186)
Did not respond to request (n = 162)
No longer have access to the data (n = 11)
Declined to provide raw data (n = 9)
Adults had reported on adolescent–parent relationships retrospectively (n = 1)

Analysed Data

Total number of adolescents *(n* = 12,400)
Total number of adolescent–parent dyads (*n* = 14,600)

Dyads removed because adolescents were not in the eligible age range (10-20 years; *n* = 1,258)
Parents removed because there was no corresponding adolescent data (*n* = 48)

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In total, we received responses from 44 (21%) researchers. Among these 20 did not

provide relevant data as researchers declined to provide requested data ($n = 9$), or no longer

had access to the data ($n = 11$). One dataset provided was excluded as participants had

reported retrospectively when adolescents were now adults. Nineteen researchers

contacted provided raw data that could be included in the study (two of these researchers

provided two datasets). Three researchers provided information about how to access public

databases that had been used in their study (one of these researchers provided information

about two public datasets) including the Child Development Project (Dodge et al., 1990),

Divorce in Flanders project (Sodermans et al., 2013), Maryland Adolescents in Context

Study, and the Philadelphia Management Study (Furstenberg Jr., 1999). All four datasets

were included, one additional database was found after screening profiles belonging to

prominent researchers, namely the Fast Track project (Conduct Problems Prevention

Research Group, 1992). Data collection ended in July 2019 and 26 unique datasets were

included in the meta-analyses.

A protocol for storing and organizing data from contacted researchers received ethical

approval from the Australian National University Human Research Committee before

researchers were contacted. Data was stored in a secure database that could only be accessed

by the authors of the current study. A record of study characteristics was kept to identify

datasets and organize study variables. All data was de-identified before being sent to the

authors of the current study.

4.2.1.2 Screening and Pooling of Datasets

All datasets were checked for completeness and integrity by ensuring that the data

could be read and contained variables requested. For each dataset, we also deleted obviously

duplicated cases as indicated by participant identifiers and recoded impossible values that

were out of range (such as, a value of 6 on a measure with a rating scale ranging from 1 to 5)

as missing values. We also contacted authors for clarification when any issues were identified for a dataset (such as, unclear variable labels).

All 26 datasets were re-coded, screened, and transformed into long format before being merged using the following steps: (a) children outside of the age range 10 to 20 were excluded from the data, (b) missing data was handled using multiple imputation; (c) categorical variables (including, adolescent gender , parent gender, country of residence, and reporter of outcome) were transformed so that there was consistent coding across studies, (d)adolescent were assigned an ID that was unique compared to all other adolescents in the 26 collected datasets, (e) adolescent–parent relationship and outcome variables were standardized so that they were on the same scale across studies, (e) negative variables were reverse coded so that higher values indicate more positive adolescent–parent relationships or more positive adolescent outcomes, and (f) the dataset was transformed into long format so that each row in the dataset represented adolescent and parent reports of one parenting or relationship variable and one outcome variable (dyads had multiple rows if they had reported on more than one parenting and relationship or outcome variable; see Table A1 for an example of the data structure). Datasets were then merged using a unique study ID so that all rows belonging to dataset 1 were grouped on top of rows belonging to dataset 2 etc..

4.2.2 Analyses

4.2.2.1 One-Stage IPD Meta-Analysis Using Polynomial Regression

We conducted multi-level polynomial regression in R Version 3.6.1. Multi-level analytic techniques were used to account for the nested nature of the data as all observations were nested within studies and participants. Adolescent and parent reports were mean centred in the combined sample to reduce problems of multicollinearity (Barranti et al., 2017). Regression analysis involved four steps.

Step 1. As shown in Equation 1, the relationship of all adolescent and parent reports to all reports of adolescent outcomes were explored using polynomial regression analysis that included five independent terms: (a) parent report of parenting and relationship (P), (b) adolescent report of parenting and relationship (A), (c) interaction between parent and adolescent report of parenting and relationship (PA), (d) squared parent report (P^2), and (e) squared adolescent report (A^2). Five covariates were also included in the model, including age, child gender, parent gender, country of residence, and reporter of outcome.

$$Y_{is} = b_{0s} + b_{1s}P_{1is} + b_{2s}A_{2is} + b_{3s}PA_{3is} + b_{4s}P^2{}_{4is} + b_{5s}A^2{}_{5is} + b_{6s}\,\text{Age}_{6is} +$$

$$b_{7s}\text{Child Gender}_{7is} + b_{8s}\text{Parent Gender}_{8is} + b_{9s}\text{Country of Residence}_{9is} +$$

$$b_{10s}\text{Outcome Reporter}_{10is} + e \tag{1}$$

Where *b* represents regression coefficients for all predictors, *i* indexes the participants, and *s* indexes the study.

Step 2. The potential moderating effects of parenting and relationship dimensions, outcome dimensions, age, child gender, parent gender, country of residence, and outcome reporter were tested one by one in separate regression models by adding the interaction terms between the moderator being tested and the five main terms in Equation 1 (including parent report, adolescent report, interaction term, squared parent report, and squared adolescent report) to the equation. For all categorical moderators we used dummy coding and when the categorical moderators had more than three groups, the reference group was rotated so that all possible comparisons could be made.

Parenting and relationship outcomes were coded as behavioural control, psychological control, warmth, relationship quality, or family functioning. Parenting and relationship outcomes that are positively correlated with adolescent wellbeing were coded as positive whereas dimensions that are negatively associated with wellbeing, were coded as negative (Meeus, 2016).

Positive behavioural control behaviours included knowledge, disclosure, reasoning, democratic parenting, autonomy support, and supervision. Negative behavioural control included inconsistency, harsh parenting, and corporeal punishment. Psychological control included negative behaviours such as hostility, shaming, and rejection.. Positive warmth behaviours included adolescent–parent communication, positive relationships, acceptance, and time together. Expressed emotion (characterized by high levels of criticism and parental overinvolvement along with low levels of warmth) was considered a negative warmth behaviour. Positive relationship quality indicators included amount of time spent together and observer ratings of warmth in adolescent–parent interactions, while negative behaviours included frequency of conflict. Family functioning included positive outcomes such as family communication, family satisfaction, family cohesion, and family support. All parenting and relationship variables were coded so that higher scores represented more positive parenting and relationships.

Outcomes were coded as socioemotional, behavioural, or academic, and were also coded as negative or positive. Negative socioemotional outcomes included internalising problems, depression and loneliness, positive socioemotional outcomes included resilience and wellbeing. Negative behavioural outcomes included externalising problems, drug and alcohol problems, violence, and delinquency. Prosocial behaviour was a positive behavioural outcome. GPA and grades were coded as academic outcomes. Again, all outcomes were coded so that higher scores represented more adaptive outcomes.

During step 1 and 2 of polynomial regression, age was included in the analyses as a continuous variable. During step 2 it was also transformed into a three-level factor that compared young (10-13), to middle (14-17), and older adolescents (18-20; Smetana & Rote, 2019) so that the nature of the moderation effect could be further examined. Adolescent and parent gender were two-level factors; female was coded as 0 and male as 1. Country of

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residence was also a two-level factor; US sample was coded as 0 and non-US sample was coded as 1. Reporter of outcome was a three-level factor that compared child report to parent and combined report. Coding of three-level factors was rotated during moderator analysis so that all possible comparisons could be made (see Equation 2 for an example).

$$Y_{is} = b_{0is} + b_{1s}P_{is} + b_{2s}A_{is} + b_{3s}PA_{is} + b_{4s}P^2{}_{is} + b_{5s}A^2{}_{is} + b_{6s}\,\text{Age}_{is} +$$

$$b_{7s}\text{Child Gender}_{is} + b_{8s}\text{Parent Gender}_{is} + b_{9s}\text{Country of Residence}_{is} +$$

$$b_{10s}\text{Outcome Reporter}_{is} + (b_{11s}P_{is} * \text{Behavioural Control Factor}_{is} + b_{12s}A *$$

$$\text{Behavioural Control Factor}_{is} + b_{13s}PA_{is} * \text{Behavioural Control Factor}_{is} +$$

$$b_{14s}P^2{}_{is} * \text{Behavioural Control Factor}_{is} + b_{15s}A^2{}_{is} * \text{Behavioural Control Factor}_{is}) +$$

$$e \tag{2}$$

Step 3. When there was a significant moderation effect, subgroup analyses were used to test the five key study effect sizes (such as P, A, PA, P^2, A^2 in Equation 1) at different levels of the moderator. For example, the relationship of adolescent–parent reports of parenting and relationship dimensions to adolescent outcomes was explored for behavioural control, psychological control, warmth, relationship quality, and family functioning separately.

4.2.2.2 Two-Stage IPD Multivariate Meta-Analysis

Subsequently, multivariate meta-analyses were conducted to see whether results from this more traditional meta-analytic approach were consistent with results obtained using one-stage IPD analysis. The multivariate meta-analytic framework allows studies to conduct meta-analyses that involve multiple dependent effects, in order to control for the correlation among effect sizes (Gasparrini et al., 2012). Our multivariate meta-analyses involved two stages: stage one tested the within-study model, by examining the five relevant terms in each study (including P, A, PA, P^2, A^2), and the second stage tested the between-studies model, by

examining the distribution of the five relevant coefficients found for each study during stage one and testing the effect of moderators.

Stage one tested the model shown in Equation 3 in each dataset. Within each dataset ($n = 26$), effect sizes were calculated separately for each parenting and relationship dimension and each outcome dimension. In total, 227 unique models were calculated in stage one. Following this analysis, relevant estimates were extracted, including the five regression coefficients (such as,b_1P, b_2A, b_3PA, b_4P^2, b_5A^2) and their five variances and ten asymptotic covariances, to be used in Stage two.

$$Y = b_{0s} + b_{1s}\text{P}_{is} + b_{2s}\text{A}_{is} + b_{3s}\text{PA}_{is} + b_{4s}\text{P}^2{}_{is} + b_{5s}\text{A}^2{}_{is} + e \qquad (3)$$

In Stage two, the mvmeta package (Gasparrini et al., 2012) in R Version 3.6.1 was used to perform the mixed-effects multivariate meta-analysis. Multivariate meta-analysis automatically assigns weights to each study to account for nesting of multiple equations within studies using inverse variance weights (Riley et al., 2017). Weighting is assigned for each effect size estimate proportional to the inverse of how much variance there is in each estimate. Larger studies with more precise effect size estimates will be given more weight compared to smaller, noisier studies (Riley et al., 2017). The Q-statistic and I^2 index was used to assess the homogeneity assumption. The I^2 index levels can be described as low, moderate and high, when they fall close to 25%, 50% and 75% respectively (Higgins & Thompson, 2002).

Mixed-effects meta-regression was used to examine the moderating effect of parenting and relationship dimension, outcome dimension, age, adolescent and parent gender, country of residence and reporter of outcome. Parenting and relationship dimensions, outcome dimensions, country of residence and reporter of outcome were coded using the procedures outlined above. Age was a continuous variable that represented the mean age of

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adolescents within each study. Adolescent and parent gender were continuous variables that represented the percentage of adolescents or parents who were female.

4.3 Results

4.3.1 Studies and Participants Characteristics

Characteristics of the full sample are presented in Table 4.1 (characteristics of individual studies are presented in Table A2). Data were provided from 26 datasets for 13,658 adolescents. 1,258 were excluded because they were outside of the relevant age range (10 to 20 years old), so that the final sample included 12,400 adolescents and 14,600 total adolescent–parent dyads (see references in Table A2). Studies were conducted in 8 countries, 54.00% of participants were from the US. 54.02% of adolescents were females and 77.96% of parents were mothers. The average age of adolescents was 14.16, 51.43% of adolescents were in early adolescence, 41.80% were in middle and 6.77% were in late adolescence.

4.3.2 One-Stage IPD Meta-Analysis

4.3.2.1 Exploring the Relationship Between Adolescent–Parent Discordance and Adolescent Outcomes Using Polynomial Regression

The outcomes of a one-stage IPD meta-analyses of adolescent–parent report interaction effects are summarized in Table 4.2. In the first regression analyses, polynomial regression was used to examine the relationship between adolescent–parent discordance and adolescent outcomes (see Equation 1). Adolescent reports of parenting and relationship dimensions were significantly associated with adolescent outcomes ($\beta = 0.026$, $p < 0.001$) All other terms, including parent reports of parenting and relationship, the interactions term, squared parent reports, and squared adolescent reports, were not significantly associated with adolescent outcomes.

Table 4.1

Characteristics of the dataset included in the IPD meta-analyses

Descriptives	
Demographics	
Age of Adolescent	*M* = 14.16
	51.43% Early
	41.80% Middle
	6.77% Late
Adolescent Gender	54.02% Female
N = 12,400	31.26% Male
	14.72% NA
Parent Gender	77.96% Female
N = 14,600	5.59% Male
	16.45% NA
Country of residence	54.00% US
	16.39% The Netherlands
	12.44% Belgium
	8.56% Germany
	8.61% Other
Parenting and relationship dimensions	
Warmth	45.00%
Relationship Quality	31.60%
Behavioural Control	60.01%
Psychological Control	20.00%
Family Functioning	4.38%
Outcome Dimension	
Socio-Emotional	65.16%
Behavioural	41.80%
Academic	23.42%

Table 4.2

Adolescent–parent report interaction and moderating effects from one-stage IPD analyses

	$\beta(SE)$	p		
Full Model				
Parent report	0.005(0.005)	0.233	R^2	0.000
Adolescent report	0.026(0.005)	<0.001***	F(3,93477	12.368
Interaction term	-0.002(0.004)	0.713	p	<0.001
Parent report squared	0.000(0.002)	0.978		
Adolescent report squared	-0.004(0.003)	0.228		
Tests of Moderators[a]				
Age[b]	-0.006(0.029)	0.833		
Girl versus Boy	0.001(0.006)	0.891		
Mother versus father	0.001(0.012)	0.927		
Child Gender * Parent Gender	-0.024(0.027)	0.364		
US versus other countries	0.002(0.016)	0.869		
Parent reporter of outcomes versus adolescent reporter	-0.005(0.012)	0.697		
Aggregate report of outcomes versus adolescent reporter	0.027(0.010)	0.006**		
Aggregate report of outcome versus parent report	0.031(0.014)	0.026*		
Parenting and relationship dimensions				
Beh. Cont.[c] vs. Warmth	0.001(0.010)	0.922		
Psych. Control[d] vs. Warmth	0.001(0.012)	0.926		
Relat. Qual.[e] vs. Warmth	0.010(0.023)	0.648		
Fam. Funct.[f] vs. Warmth	0.010(0.032)	0.741		
Psych. Control[d] vs. Beh. Cont.[c]	0.000(0.011)	0.990		
Relat. Qual.[d] vs. Beh. Cont.[c]	0.009(0.022)	0.673		
Fam. Funct.[f] vs. Beh. Cont.[c]	0.010(0.032)	0.763		
Relat. Qual.[e] vs. Psych. Control[c]	0.009(0.023)	0.690		
Fam. Funct.[f] vs. Psych. Control[c]	0.009(0.032)	0.771		
Fam. Funct[f] vs. Relat. Qual.[e]	0.000(0.038)	0.998		
Negative vs. Positive	-0.001(0.008)	0.899		
Outcome dimensions				
Behavioural vs. Soc.-Emot[g]	0.000(0.008)	0.773		
Academic vs. Soc.-Emot[g.]	-0.043(0.011)	<0.001***		
Academic vs. Behavioural	-0.042(0.012)	<0.001***		
Negative vs. Positive	0.019(0.009)	0.023*		

Note. [a]Interaction effects of the moderator variables and the interaction term (A*B); [b]Age as a continuous variable; [c]Behavioural Control; [d]Psychological Control; [e]Relationship Quality; [f]Family Functioning; [g]Socio-Emotional. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

4.3.2.2 Moderating Effects of Parenting and Relationship Dimension, Outcome

Dimension, and Demographic Variables

We tested whether the interaction effects of adolescent and parent reported parenting and relationship quality on adolescent outcomes differed between parenting and relationship dimensions, outcome dimensions, age, adolescent and parent gender, country of residence, and reporter of outcome. Results are presented in Table 4.2. Only two moderators were significant: outcome dimension and reporter of outcome.

Outcome Dimension. Outcome dimension (socio-emotional, behavioural, and academic) significantly moderated the relationship from a term representing the interaction of adolescent and parent reports of parenting and relationship to adolescent outcomes. Specifically, the interaction effect was larger for socio-emotional (see Table 4.2; β = -0.043, $p < 0.001$) and behavioural (β = -0.042, $p < 0.001$) outcomes as compared to academic outcomes. A variable that compared positive and negative adolescent outcomes also significantly moderated the relationship between the interaction term and adolescent outcomes such that the interaction effect was larger for negative than positive outcomes (β = 0.019, $p = 0.023$).

Subgroup analyses showed that the relationship of a term representing the interaction of parent and adolescent reports to adolescent outcomes was not significant for socioemotional, behavioural or academic outcomes and was also not significant for positive or negative outcomes (see Table 4.3).

Reporter of Outcome. A three-level factor comparing adolescent, parent and aggregated reports of adolescent outcomes (described above) found that reporter of outcome significantly moderated the relationship between a term representing the interaction of adolescent and parent reports of parenting and adolescent outcomes. Specifically, the

Table 4.3

Sub-group analyses of adolescent–parent report interaction effects

	β(SE)	p		
Socioemotional Outcomes				
Parent report	0.003(0.005)	0.527	$R^{2Change}$	0.772
Adolescent report	0.016(0.004)	<0.001***		
Interaction term	-0.001(0.002)	0.831		
Parent squared	0.000(0.003)	0.979		
Adolescent squared	-0.001(0.004)	0.831		
Behavioural Outcomes				
Parent report	0.003(0.005)	0.475	$R^{2Change}$	0.828
Adolescent report	0.009(0.005)	0.063		
Interaction term	0.000(0.004)	0.935		
Parent squared	0.000(0.003)	0.866		
Adolescent squared	-0.001(0.003)	0.658		
Academic Outcomes				
Parent report	0.018(0.009)	0.039*	$R^{2Change}$	0.729
Adolescent report	-0.004(0.009)	0.660		
Interaction term	-0.004(0.008)	0.614		
Parent squared	0.007(0.005)	0.143		
Adolescent squared	-0.011(0.006)	0.048*		
Positive Outcomes				
Parent report	0.000(0.002)	0.987	$R^{2Change}$	0.972
Adolescent report	0.002(0.002)	0.455		
Interaction term	0.000(0.001)	0.992		
Parent squared	0.000(0.001)	0.966		
Adolescent squared	0.000(0.002)	0.979		
Negative Outcomes				
Parent report	0.005(0.005)	0.269	$R^{2Change}$	0.611
Adolescent report	0.023(0.005)	<0.000***		
Interaction term	-0.002(0.004)	0.720		
Parent squared	0.000(0.003)	0.993		
Adolescent squared	-0.005(0.003)	0.107		
Adolescent reported outcome				
Parent report	0.004(0.005)	0.456	$R^{2Change}$	0.624
Adolescent report	0.025(0.005)	<0.001***		
Interaction term	-0.001(0.004)	0.743		
Parent squared	0.000(0.003)	0.987		
Adolescent squared	-0.003(0.003)	0.294		
Parent reported outcome				
Parent report	0.008(0.012)	0.518	$R^{2Change}$	0.592
Adolescent report	0.001(0.012)	0.909		
Interaction term	-0.004(0.011)	0.699		
Parent squared	0.001(0.006)	0.929		
Adolescent squared	0.001(0.007)	0.835		
Aggregate report of outcome				
Parent report	0.026(0.008)	0.002**	$R^{2Change}$	0.615
Adolescent report	0.034(0.008)	<0.000***		
Interaction term	0.009(0.008)	0.260		
Parent squared	0.002(0.005)	0.629		
Adolescent squared	0.007(0.005)	0.177		

*Note. *p < 0.05; **p < 0.01; ***p < 0.001*

interaction effect was larger for aggregated reports of adolescent outcomes than adolescent reports ($\beta = 0.027$, $p = 0.006$) and parent reports ($\beta = 0.031$, $p = 0.026$).

Subgroup analyses showed that the relationship of a term representing the interaction of adolescent and parent reports of parenting and relationship dimensions was not significantly related to adolescent outcomes when outcomes were based on adolescent, parent, or aggregated reports of parenting and the overall relationship (see Table 4.3).

4.3.3 Two-stage Multivariate Meta-Analysis

4.3.3.1 Exploring the Relationship Between Adolescent–Parent Discordance and Adolescent Outcomes Using Polynomial Regression

As shown in Table 4.4, our analysis of the full model showed that parent reports ($\beta = 0.047$, $p = 0.007$) and adolescent reports ($\beta = 0.134$, $p < 0.001$) of parenting and relationship dimensions, but none of the higher order terms or the interaction term were significantly associated with adolescent outcomes. The I^2 estimate ($I^2 = 97.30\%$) as well as the Q-statistic ($Q(1,105) = 40,535$, $p < 0.001$) showed that there was significant heterogeneity between study results, as such mixed-effects meta-regression was used in order to identify potential moderators.

4.3.3.2 Moderating Effects of Parenting, Outcome, and Demographic Variables

We tested whether the interaction effects of adolescent and parent reports of parenting and relationship dimensions on adolescent outcomes differed between parenting and relationship dimensions, outcome dimensions, age, adolescent and parent gender, country of residence, and reporter of outcome. Results are presented in Table 4.4. Two moderator effects were significant: reporter of outcome and outcome dimension.

Table 4.4

Summary of adolescent–parent report interaction effects from two-stage IPD multivariate meta-analyses

	β(SE)	p	95% CI
Full model			
Parent report	0.047(0.017)	0.007**	[0.013, 0.080]
Adolescent report	0.134(0.030)	<0.001***	[0.075, 0.193]
Interaction term	0.005(0.006)	0.423	[-0.007, 0.017]
Parent squared	0.000(0.003)	0.992	[-0.007, 0.007]
Adolescent squared	0.014(0.018)	0.446	[-0.022, 0.050]
	I^2	97.30%	
	$Q(1,105)$	40,535.253	
	p	<0.001	
Moderating effects[c]			
Demographics			
Age	-0.003(0.003)	0.297	[-0.009, 0.003]
Middle vs. younger	0.004(0.009)	0.700	[-0.015, 0.022]
Older vs. younger	0.090(0.120)	0.456	[-0.146, 0.325]
Older vs. middle	0.086(0.120)	0.474	[-0.149, 0.321]
Child gender	-0.026(0.035)	0.450	[-0.095, 0.042]
Parent gender	0.063(0.045)	0.384	[-0.026, 0.151]
US versus other countries	0.017(0.017)	0.312	[-0.016, 0.051]
Parent reporter of outcome versus adolescent	0.021(0.003)	<0.001***	[-0.003, -0.017]
Aggregate report of outcome versus adolescent	-0.012(0.007)	0.061	[-0.001, 0.025]
Aggregate report of outcome versus parent	-0.034(0.007)	<0.001***	[0.021, 0.047]
Parenting and relationship dimensions			
Relationship Quality vs. Warmth	-0.013(0.017)	0.446	[-0.047, 0.021]
Behav. Control[a] vs. Warmth	0.006(0.010)	0.569	[-0.014, 0.026]
Psych. Control[b] vs. Warmth	-0.031(0.027)	0.240	[-0.084, 0.021]
Family Functioning vs. Warmth	0.009(0.028)	0.760	[-0.046, 0.063]
Behav. Control[a] vs. Relationship Quality	0.019(0.017)	0.622	[-0.012, 0.020]
Psych.[b] Control vs. Relationship Quality	0.008(0.016)	0.622	[-0.024, 0.040]
Family Functioning vs Relationship Quality	-0.011(0.014)	0.402	[-0.038, 0.015]
Psych. Control[b] vs. Behav. Control[a]	-0.037(0.027)	0.160	[-0.089, 0.014]
Family Functioning vs. Behav Control[a]	0.003(0.028)	0.924	[-0.052, 0.057]
Family Functioning vs. Psych. Control[b]	0.040(0.037)	0.281	[-0.033, 0.113]
Negative vs. Positive	-0.003(0.003)	0.297	[-0.009, 0.003]
Outcome dimensions			
Behavioural vs. Socio-emotional	-0.003(0.002)	0.157	[-0.007, 0.001]
Academic vs. Socio-emotional	0.013(0.011)	0.231	[-0.008, 0.033]
Academic vs. Behavioural	0.016(0.011)	0.136	[-0.005, 0.036]
Negative vs. Positive	-0.013(0.002)	<0.001***	[0.009, 0.018]

Note. *p* < 0.05; **p* < 0.01; ***p* < 0.00. [a]Behavioural Control; [b]Psychological Control; [c]Interaction effects of the moderator variables and the interaction term

Outcome Dimension. A two-level factor comparing positive and negative adolescent outcomes was found to significantly moderate the relationship between a term representing the interaction of adolescent and parent reports and adolescent outcomes. Specifically, the interaction effect was larger for positive than negative outcomes (β = -0.013, $p < 0.001$) Subgroup analyses showed that the relationship of the interaction term to adolescent outcomes was not significant for either positive or negative adolescent outcomes (see Table 4.5).

Reporter of Outcome. A three-level factor comparing parent, adolescent, adolescent and aggregated reports of adolescent outcomes was also found to significantly moderate the relationship of the adolescent and parent report interaction term and adolescent outcomes such that the relationship was stronger for parent reports of outcome as compared to adolescent (β = 0.021, $p < 0.001$) and aggregated reports (β = -0.034, $p < 0.001$). Subgroup analysis found that regardless of reporter of outcome the interaction of adolescent and parent reports of parenting and relationship was not significantly related to adolescent outcome.

4.4 Discussion

Low levels of adolescent–parent concordance on reports of parenting and relationship dimensions are ubiquitous, prompting researchers to question whether discrepancies between adolescent and parent reports of parenting and overall relationship quality are meaningfully linked to key family dynamics (De Los Reyes & Ohannessian, 2016). Methodological limitations of extant literature have prevented past reviews from quantitatively analysing the relationship between adolescent–parent discordance and adolescent outcomes, and from exploring potential moderator effects (Hou et al., 2019; Korelitz & Garber, 2016).

Table 4.5

Subgroup analyses of adolescent–parent report interaction effects from two-stage IPD multivariate meta-analyses

	β(SE)	p	(95%)CI		
Positive outcomes					
Parent report	0.114(0.018)	<0.001***	[0.079, 0.150]	I^2	87.8%
Adolescent report	0.103(0.019)	<0.001***	[0.066, 0.140]	Q(728)	36606.158
Interaction term	0.026(0.014)	0.059	[-0.001, 0.054]	p	<0.001***
Parent squared	0.026(0.014)	0.001**	[-0.001, 0.016]		
Adolescent squared	0.003(0.003)	0.359	[-0.004, 0.010]		
Negative outcomes					
Parent report	0.064(0.011)	<0.001***	[0.043, 0.085]	I^2	98.0%
Adolescent report	0.115(0.014)	<0.001***	[0.088, 0.143]	Q(728)	36606.1583
Interaction term	-0.001(0.003)	0.683	[-0.006, 0.004]	p	<0.001***
Parent squared	0.002(0.002)	0.440	[-0.003, 0.007]		
Adolescent squared	-0.005(0.007)	0.499	[-0.018, 0.009]		
Adolescent reported. outcome					
Parent report	0.050(0.018)	0.007**	[0.014, 0.086]	I^2	98.5%
Adolescent report	0.182(0.026)	<0.001***	[0.131, 0.233]	Q(423)	28469.017
Interaction term	0.016(0.011)	0.140	[-0.005, 0.036]	p	<0.001***
Parent squared	-0.004(0.001)	<0.001***	[-0.007, -0.002]		
Adolescent squared	0.007(0.009)	0.425	[-0.011, 0.025]		
Parent reported outcome					
Parent report	0.089(0.020)	<0.001***	[0.050, 0.128]	I^2	95.4%
Adolescent report	0.097(0.018)	<0.001***	[0.061, 0.133]	Q(299)	6570.245
Interaction term	0.004(0.004)	0.223	[-0.003, 0.011]	p	<0.001***
Parent squared	0.002(0.003)	0.526	[-0.004, 0.008]		
Adolescent squared	-0.013(0.012)	0.270	[-0.035, 0.010]		
Aggregated reports of outcome					
Parent report	0.096(0.015)	<0.001***	[0.067, 0.125]	I^2	0.067
Adolescent report	0.062(0.014)	<0.001***	[0.035, 0.089]	Q(109	17.152
Interaction term	-0.006(0.005)	0.233	[-0.017, 0.004]	p	<0.001***
Parent squared	0.010(0.004)	0.020*	[0.002, 0.017]		
Adolescent squared	0.005(0.005)	0.293	[-0.005, 0.015]		

Note. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

For this reason, the present study used advanced statistical techniques including IPD meta-analyses and polynomial regression to comprehensively test the relationship of adolescent and parent concordance on reports of parenting and relationship dimensions to adolescent outcomes. We were also able to explore the moderating effects of key variables

including parenting and relationship dimension, outcome dimension, age, country of residence, adolescent and parent gender, and reporter of outcome.

Our findings showed non-significant relationships between the interaction of adolescent and parent reports and adolescent outcomes using the one-stage and two-stage IPD approach. In both approaches, moderation analyses demonstrated that factors comparing positive and negative outcome dimensions and comparing reporter of adolescent outcome significantly moderated the relationship between the interaction of adolescent and parent reports and adolescent outcomes. Using the two-stage but not the one-stage approach, a factor comparing positive and negative parenting was found to significantly moderate the interaction effect. In the one-stage and two-stage approach, subgroup analysis was used to explore significant interaction effects but none of these analyses showed a significant relationship between the interaction of adolescent and parent reports of parenting and relationship dimensions and adolescent outcomes. These findings and implications for further research are discussed below.

4.4.1 Explaining Links Between Adolescent–Parent Discordance and Adolescent Outcomes

Overall, we found that a term representing the interaction of adolescent and parent reports of parenting and relationship dimensions was not significantly related to adolescent outcomes. The size, direction, and significance of this relationship was similar using two-stage and one-stage IPD meta-analytic techniques. This was consistent with our expectations as past research has found that the magnitude and direction of effect sizes are generally similar using both approaches (Fanshawe & Perera, 2019). Importantly, these results do not align with the modified Operations Triad Model (De Los Reyes & Ohannessian, 2016) suggesting that high levels of discordance should be linked to both adaptive and maladaptive family dynamics. Yet, these findings are consistent with those of a previous qualitative

review (Hou et al., 2019) that found inconsistent evidence for a relationship between the interaction of adolescent and parent reports of parenting and relationship dimensions and adolescent outcomes. In light of these findings, researchers should expect adolescents and parents to have unique perceptions of their interactions due to their unique beliefs, attitudes and expectations of the relationship, rather than methodological issues or problems in the family environment. Accordingly, it is vital that researchers adopt multi-rater assessment methods when exploring adolescent–parent relationships.

Although we predicted that parenting and relationship dimension would moderate the relationship between the interaction of adolescent and parent reports and adolescent outcomes, neither the one-stage nor the two-stage analysis found a significant moderation effect. As such, discordance on parenting and relationship dimensions that are expressed during shared interactions, such as parent warmth, does not necessarily reflect worse adolescent–parent communication and attachment as compared to discordance on dimensions such as general family functioning. This study adopted broad parenting and relationship dimensions and outcome dimensions, that grouped a number of related dimensions, to comprehensively test the modified Operations Triad Model (De Los Reyes & Ohannessian, 2016). As such, we were able to provide a complex overview of the proposed links between adolescent–parent report discordance on parenting and relationship dimensions and adolescents outcomes. Future research should explore whether levels of adolescent–parent discordance are linked to more narrowly defined parenting and relationship dimensions.

In the one-stage analysis, the relationship between the interaction of adolescent and parent reports of parenting and relationship dimensions and adolescent outcomes was stronger for socioemotional or behavioural outcomes as compared to academic outcomes, and in both the one-stage and two-stage analyses, the relationship was moderated by a factor comparing negative and positive parenting and relationship dimensions (but in different

directions). Subsequently, subgroup analyses showed that the interaction of parent and adolescent reports of parenting and relationship dimensions was not significantly related to socioemotional, behavioural, or academic outcomes, or to positive or negative outcomes. Again, given that our study used broad outcome dimensions, future research should explore whether adolescent–parent discordance is more strongly linked to more specific outcomes belonging to these dimensions. For example, certain socioemotional outcomes, such as depressive symptoms, may be more strongly related to adolescent–parent discordance than others, such as self-efficacy.

In the one-stage and two-stage analysis, moderator analysis showed that reporter of outcomes moderated the strength of the relationship between the interaction of adolescent and parent reports and adolescent outcomes. In the one-stage analysis the relationship was stronger when studies had used aggregated reports of adolescent outcomes versus adolescents' or parents' reports, while in the two-stage analysis the interaction term was stronger when studies had used parents' reports as compared to adolescents' or aggregated reports of adolescent outcomes. This was not in line with expectations, as the relationship between two constructs is likely to be stronger when there are similarities between the methods of measurement (such as the same reporter; Podsakoff et al., 2011). There were a broad range of parenting measures and outcome measures used in the data we collected, some of which have been shown to have strong psychometric properties (such as the Alabama Parenting Questionnaire; Frick, 1991), and some of which had no published evidence regarding their psychometric properties (for example Sodermans et al., 2013). This may help to explain why there were inconsistent relationships between reporter of outcome and adolescent outcomes. Again, our approach allowed us to create a large dataset and robustly test the relationship of discordance to adolescent outcomes, but future research should further

explore whether the interaction of adolescent and parent reports is differentially related to adolescent outcomes according to reporter of outcome.

Our analyses also examined the moderating effect of parenting and relationship dimension (behavioural control, psychological control, warmth, relationship quality, and overall family functioning), adolescent and parent gender, adolescent age, and country of residence. Contrary to expectations, our analyses found that parenting and relationship dimension did not significantly moderate the relationships between the interaction of adolescent and parent reports and adolescent outcomes. This finding suggests that adolescents and parents should not be expected to have stronger levels of agreement on shared interactions (including time spent together or parent praise), than parent behavioural control or family cohesion, despite the fact that it is more common for adolescents and parents to reflect on different scenarios when reporting on these latter dimensions. Even when adolescents and parents are reporting on shared interactions, their perceptions are shaped by their own attitudes, beliefs, and expectations so their reports should be expected to differ. These findings highlight the importance of exploring how parenting behaviours and broader relationship dynamics are experienced by adolescent and parents, and not just creating mean level estimates.

Although we predicted that age would moderate the relationship between the interaction of adolescent and parent reports, and adolescent outcomes, results showed that this moderation effect was not significant. We posited that high levels of discordance during later adolescence would reflect lack of improvement in adolescent perspective taking and communication skills, as the development of these skills is assumed by many theorists to cause adolescents and parents to become more aligned in their views of family dynamics (Laursen & Collins, 2009; Steinberg, 2001). Despite this, our findings suggest adolescents and parents continue to have unique perspectives on their relationship across adolescence and

that this is no more problematic in later adolescence than early or middle adolescence. Future research should explore adolescents' views on parents across adolescence to better understand how improved interpersonal skills may impact adolescent–parent relationship dynamics.

We also hypothesized that the relationship of adolescent–parent discordance to adolescent outcomes would be stronger in mother-daughter dyads as opposed to other dyads, but our findings did not support this prediction (Hou et al., 2019; Korelitz & Garber, 2016). Gender research suggests that female adolescents are better able to compromise during disagreements as compared to males and that mothers generally play more of a role in maintaining family cohesion in comparison to fathers, suggesting that higher levels of discordance in these dyads may be indicative of maladaptive dynamics (Smetana & Rote, 2019). Despite this, our results suggest that levels of concordance are not more adaptive for mother-female dyads than other dyads.

Finally, the datasets provided were predominantly collected in the US and in other individualistic countries, suggesting that we may not have found a significant moderator effect for country of residence due to methodological issues. Further research is needed in culturally diverse samples to examine cross-cultural relationships between adolescent–parent concordance and adolescent outcomes in more depth.

4.4.2 Strengths, Limitations, and Future Research

Our findings have implications for future research. Overall, we did not find evidence to support theory that levels of adolescent–parent discordance regarding parenting and relationship dimensions are linked to maladaptive outcomes for adolescents. Thus, our findings suggest that the meaning and importance of adolescent–parent discordance does not differ based on parenting and relationship dimension, outcome dimension, age, adolescent or parent gender, or country of residence. In this light, regardless of individual characteristics or

broader contextual variables, adolescents and parents appear to generally have differing perspectives on their interactions, as their perceptions are shaped by their unique expectations, attitudes, and beliefs. Overall, the results from this study increase the impetus for researchers to adopt multi-rater assessments and to value the unique information provided by parents and adolescents, when examining adolescent–parent relationships.

Our findings have significant implications for clinical practice. Given that high levels of discordance are not linked to maladaptive dynamics, clinicians should expect that adolescent and parent reports regarding their relationship will differ and should consider the unique information that each informant can provide about the family environment when planning treatment goals. The results of this study also suggest that high levels of discordance between adolescents and parents are generally not linked to maladaptive dynamics such as tension or conflict. Again, this is indicative that discordance between adolescents and parents during assessment should be explored by clinicians to establish how their unique perspective shape their experience of family relationships, rather than being seen as a limitation of assessment or an indication of problems in the family environment.

This study had a number of strengths that increase the importance and generalizability of our findings. We used complex and state-of-the-art statistical methods including IPD meta-analysis and polynomial regression, using a large sample size. In doing so, we were able to provide a robust exploration of the importance of adolescent–parent report discordance in relation to multiple dimensions of parenting, relationship quality, and general family functioning that are strongly linked to adolescent development. We were also able to explore a range of key developmental outcomes. Moreover, our study was able to test a number of potential moderator effects that had not previously been explored despite strong theoretical reasons to do so. Consequently, our study is the most comprehensive test of the modified

Operations Triad Model (De Los Reyes & Ohannessian, 2016) that has been conducted so far.

Despite the strengths of this study, there are also some significant limitations. First, our study aimed to provide a broad overview of the relationship between adolescent–parent discordance and adolescent outcomes. As a result, we combined reports that had been obtained on a variety of parenting and relationship dimensions and outcome dimensions using a range of assessment tools. This was both a strength and a limitation of our research. Although we were able to clarify the overall relationship of adolescent–parent discordance to adolescent outcomes, our approach may also have obscured the unique importance of discordance on certain parenting behaviours and broader relationship dynamics and for specific adolescent outcomes. For example, although our research showed that the interaction of adolescent and parent reports of warmth was significantly related to adolescent outcomes, past research found that unique parenting behaviours that were categorized as warmth in our study, including conflict and acceptance, were differentially related to internalising problems. Specifically, depressive symptoms were significantly related to adolescent–parent concordance on conflict but not parental acceptance (Laird & De Los Reyes, 2013). This creates further impetus for researchers to conduct a more nuanced and focused exploration of the links between adolescent–parent discordance and adolescent outcomes.

Second, there was a low response rate from authors who were contacted for relevant datasets (of 209 authors contacted, 21 provided raw data or information about how to access public databases). This low response rate may be a source of bias, for example authors may not have provided data that produced non-significant results. Alternatively, it is possible that authors no longer had access to relevant datasets as ethical guidelines commonly do not allow researchers to store data indefinitely. Many of the papers that we screened were conducted more than ten years ago, however we contacted authors as we theorized that they may have

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conducted further research with their datasets, allowing them to store the data for longer, or may have access to other relevant data. Additionally, among social science researchers there is a low willingness in general to share data (Kim & Adler, 2015). Our study highlights the importance of promoting open science practices.

Third, all of the datasets included in the current meta-analyses were cross-sectional, meaning that we did not examine longitudinal or bidirectional relationships between adolescent–parent discordance and adolescent outcomes. Our research found that levels of adolescent–parent concordance were not significantly related to adolescent outcomes when dyads reported on behavioural control, yet past research found that adolescent–parent discrepancies in reports of parent monitoring predicted adolescent delinquent behaviour two years later (De Los Reyes et al., 2010). Moreover, recent research has suggested that adolescent effects (adolescent behaviours predicting parent behaviours over time) may be stronger and more frequent than parenting effects (parent behaviours predicts adolescent behaviours over time), suggesting that adolescent problems may predict levels of adolescent–parent discordance over time. Overall, current understandings of adolescent–parent discrepancies could be strengthened by exploring longitudinal and bidirectional relationships between levels of adolescent–parent concordance and adolescent outcomes.

Finally, effect sizes were small in both analyses (the interaction term of the full model was 0.007 in the one-stage analysis and 0.005 in the two-stage analysis). It is important to consider effect size as well as statistical significance when interpreting the importance of relevant effects (Nakagawa & Cuthill, 2007). Yet, effect sizes are expected to be small in polynomial regression, as multicollinearity may be introduced when many related terms are included in the same regression equation and this can hide statistical effects (Kristof, 1996; Yang et al., 2008). Additionally, as noted in the Introduction there was a high degree of shared method variance between the independent and dependent terms. Shared method

variance can severely deflate interaction effect sizes (Podsakoff et al., 2012; Siemens et al., 2010). Notably, this issue may have been mitigated by the size of our dataset, as increased sample size can increase the power of a statistical analysis to detect significant effects. Even so, it is important that future research on adolescent-parent discordance adopt procedural or statistical methods that can reduce criterion contamination effects (for example by assessing adolescent outcomes using observational or interview methods; Podsakoff et al., 2012) to gain a better understanding of the size of the relationship between adolescent-parent discordance and adolescent outcomes.

4.4.3 Conclusion

In summary, our findings demonstrated a non-significant relationship between the interaction of adolescent and parent reports of parenting and adolescent outcomes using both a one-stage and two-stage IPD meta-analysis and polynomial regression. Moderation analyses showed that this relationship was moderated by factors comparing positive and negative parenting behaviours and positive and negative outcomes, by outcome dimension (socioemotional, behavioural, and academic), and by reporter of outcome (parent, adolescent, and aggregated), but subgroup analysis did not produce any significant interaction effects. These results suggest that adolescents and parents may have different perceptions of their relationship with each other due to their unique expectations, attitudes, and beliefs, and that these different perspectives are not necessarily indicative of adaptive or maladaptive family dynamics. Future research should explore the beliefs, attitudes, and expectations that shape adolescents' and parents' reports of their relationship to gain a better understanding of their unique perspectives.

Chapter 5

Study 2: Gaining a New Perspective on the Quality of Adolescent–Parent Relationships from Adolescent Speech Samples

Although the quality of the adolescent–parent relationship is key to understanding both psychopathology and wellbeing in adolescence, there are limited assessments of adolescents' underlying attitudes regarding their parents. Study 2 aimed to evaluate a novel and brief method of coding adolescents' 3-minute speech samples regarding their affective attitudes (e.g thoughts and feelings) towards their parent. A community sample of 72 adolescents (M age = 16 years) completed a 3-minute speech sample and several questionnaire measures of the quality of the parent-teen relationship and adolescents' psychosocial outcomes. Speech samples were coded for critical and warm affective attitudes toward the parent using the Family Affective Attitude Rating Scale (FAARS). Results showed that FAARS negative relational schemas (NRS) and positive relational schemas (PRS) scales were reliable and converged with questionnaire assessments of attachment and relationship quality, psychosocial outcomes, and prosocial behaviour. When included in the same model, adolescents' NRS, but not the questionnaire measures, was uniquely associated with externalising behaviour and prosocial behaviour. Furthermore, adolescents' PRS but not the questionnaires was uniquely associated with callous-unemotional (CU) traits. Results suggest that the FAARS coding scheme can reliably assess adolescents' affective attitudes towards their parents and that this information is relevant to understanding adolescents' psychosocial outcomes.

5.1 Introduction

Reporter disagreement between adolescents and parents is the rule and not the exception; particularly regarding parenting and family dynamics (De Los Reyes, 2011). This suggests that adolescents provide unique information about family relationships. Indeed, teen reports of family dynamics uniquely predict maladaptive outcomes over and above parent reports (McLeod et al., 2007a; McLeod et al., 2007b). Teen reports may also help clinicians with collaborative goal setting in therapy, resulting in better outcomes and lower drop-out rates (Brookman-Frazee et al., 2010). In this light, there is a need for robust measurement tools which are able to account for adolescents' perspectives on family dynamics and which are feasible in clinical settings. It is therefore concerning that few non-self-report measures of adolescent attitudes about the quality of their family relationships currently exist. Multi-method assessment of parent-teen relationship quality, from the adolescent perspective, would help to address significant gaps in our knowledge of family dynamics, and potentially lead to improved therapeutic outcomes.

5.1.1 Affective Quality of Adolescent–parent Relationships

Maladaptive outcomes in adolescents are strongly linked to the affective quality of parent-teen relationships (e.g. Pinquart, 2017; Sher-Censor, 2015). Behaviours in relationships are linked to social cognitive structures known as *relational schemas* (RS) that are derived from previous experiences of the other person as well as beliefs and feelings towards them (Bullock & Dishion, 2007). In parent-teen relationships that are characterised by NRS, individuals make more negative attributions about the other's behaviour and personality, which can lead to more aggressive and harsh responses even in the context of ambiguous or neutral behaviours (e.g. Patterson, 1982).

For example, an adolescent may see their parent as "demanding" after repeated arguments about their performance at school; subsequently they may be more likely to act

aggressively when their parent discusses school with them, even if the parent is not discussing their performance. By contrast, an adolescent who has experienced frequent praise and support from their parent in response to failures at school, may see their parent as "caring". This teen may be more likely to have a positive relational schema (PRS) regarding their parent and assume that their parent is being supportive when they bring up the topic of school. In turn, this might make them more willing to act on their advice (Bullock & Dishion, 2007).

Although parent-teen relationships that are highly negative often entail frequent conflict, according to "the generational stake" hypothesis, conflict may also be an adaptive developmental process (Welsh et al., 1998). As such, conflict may exist in relationships that are characterised by PRS as well as in those characterised by NRS. It is likely, however, that the affective quality of the adolescent–parent relationship will change the meaning and outcomes of the conflict.

Using questionnaires or by coding direct observations of family interactions, family members and observers are able to report on the frequency and type of affective behaviours displayed in the relationship. By contrast, methods such as narrative coding are able to assess a broader range of relationship characteristics including behaviour as well as relational, cognitive, and affective dimensions of the relationship (Bullock & Dishion, 2007). This allows researchers to tap into underlying RS as well as affective behaviours.

5.1.2 Methods of Assessing the Parent-Teen Relationship from the Adolescent's Perspective

Currently, researchers are limited in their ability to assess parent-teen relationship quality from the adolescents' perspective, due to the limited range of assessment methods available. A review of family measurement tools (Alderfer et al., 2007) addressed the assessment of relationship dynamics (including affective attitudes), including measurement

tools which accounted for both teens' and parents' perspectives. The authors were only able to locate one unpublished non-questionnaire method of assessing the parent-teen relationship: The Constraining and Enabling Coding System (Hauser et al., n.d.). This coding system examines interactions which impede and promote development as well as adolescents' responses to them.

Since this review, coding systems for the Five Minute Speech Sample (FMSS) have been adapted to assess adolescent perspectives on teen-parent relationships and these are explored below (Przeworski et al., 2012; Schmidt et al., 2015). Additionally, there are two interview techniques, not identified by the review, which have been successfully used in research with adolescents: The Child Attachment Interview (Target et al., 2003) and the Family and Friends Interview (Steele & Steele, 2005). However, these tools focus on attachment quality and narrative coherence and do not include more global assessments of both positive and negative RS.

Three self-report measures assess adolescents' perceptions of parent affective attitudes. These include the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987), the Level of Expressed Emotion questionnaire (LEE; Hooley & Teasdale, 1986) and the Brief Dyadic Scale of Expressed Emotion (BDSEE; Medina-Pradas et al., 2011). All of these measures have demonstrated strong internal consistency and are associated with other measures of family dynamics and teen psychopathology, supporting the validity of the tools (Medina-Pradas et al., 2011). Rather than assessing *adolescent's* affective attitudes, these tools measure adolescents' perceptions of *parent* attitudes. This is problematic as adolescent–parent relationships are dyadic and both individuals are able to impact the quality of the relationship (e.g. Hale III et al., 2016). Furthermore, an overreliance on self-report measures can lead to spurious method-specific variance that can bias the observed relationship between measured constructs. As adolescents' *perceptions of* parent attitudes are

frequently measured using self-report tools, there is a pressing need for reliable non-self-report measures of adolescents' own affective attitudes regarding their parents.

It is widely accepted that assessments based on multiple methods lead to improved validity and usefulness of clinical observations. This is partly because different assessment methods provide qualitatively unique information. For example, when an individual is describing their own feelings or behaviour, reports can be distorted by their subjective state, patho-psychological processes or need to protect their own self-image (e.g. Headen et al., 2017). For this reason, recent meta-analyses reported that parent and teen self-reports of parental control and rejection, were differentially related to adolescents' psychological outcomes, as compared to observer reports (McLeod et al., 2007a; McLeod et al. 2007b). It is important that research aims to increase the availability and diversity of measures assessing family dynamics from the adolescents' perspective, in order to facilitate a more robust understanding of the family environment amongst researchers and clinicians.

5.1.3 Developmental Impact of Adolescent–Parent Affective Attitudes

Due to the lack of assessment tools available, research exploring the correlates of adolescent–parent relationship quality has mostly used measures of parent behaviours (e.g. Pinquart, 2017; Sher-Censor, 2015). When parent-teen relationships are characterised by a high degree of warm parenting behaviours, adolescents experience fewer psychological difficulties, and the reverse is true of relationships characterised by critical parenting behaviours. There is a stronger negative association between warm parenting behaviours and externalising problems as teens get older, while the opposite is true of warm parenting behaviours and internalising problems (e.g. Pinquart, 2017; Sher-Censor, 2015).

Adolescent–parent relationship quality is more strongly associated with externalising outcomes than internalising problems or prosocial behaviours (e.g. Pinquart, 2017; Pisano et al., 2017). As regards externalising outcomes, a recent meta-analysis of 568 studies found

that child (*M* age = 10.70, *SD* = 4.61) externalising problems were moderately negatively

associated with child reports of warm parenting behaviours using both self-report (493

studies) and observational (72 studies) methods (Pinquart, 2017). This relationship remained

stable over time, becoming stronger as children grew older and was also found to be

bidirectional (Pinquart, 2017). A qualitative review of research using FMSS coding systems,

concluded that parent-teen relationships characterised by high parent expressed emotion

(EE)-criticism were associated with increased risk of adolescents' externalising problems

(Sher-Censor, 2015). These results are in line with Patterson's coercion theory (Dishion &

Patterson, 1997; Patterson, 1982) which suggests that parent affective attitudes marked by

criticism, may lead to harsh or aggressive parenting, which is likely to increase aggressive

adolescents' behaviours, reinforcing parent attitudes (Patterson, 1982). Overall, the likelihood

of adolescents displaying externalising problems is strongly linked to the affective quality of

their relationships with parents (e.g. Pinquart, 2017).

Internalising problems, such as depression and anxiety, are often linked to reduced

warm parenting behaviours but not critical parenting behaviours (e.g. Sher-Censor, 2015). In

several reviews, self-reported warm parenting behaviours were shown to be moderately

negatively associated with anxiety and depression; however, the strength of the association

reduced as adolescents (12 to 18 years) grew older (e.g. McLeod et al., 2007a; McLeod et al.,

2007b). Research suggests that when parents offer consistent positive support (which is a

warm parenting behaviour), adolescents have more rewarding experiences and this appears to

promote neural responses to reward and loss, leading to greater positive affect (Morgan,

Shaw and Forbes, 2014). By contrast, in a review of eight papers which had adopted FMSS

coding systems there was not consistent evidence that parental EE-Criticism was linked to

adolescents' internalising problems, such as anxiety and depression (Sher-Censor, 2015).

Overall, adolescents are more likely to experience both externalising and internalising

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difficulties when the quality of their relationships with their parents is experienced as critical and lacking in warmth, although the evidence is stronger for externalising problems.

Finally, there is strong evidence that a relative lack of warm parenting behaviours is linked to both antisocial and prosocial adolescents' attitudes (Eisenberg et al., 2006; Pisano et al., 2017). A recent narrative review (Pisano et al., 2017) found strong evidence that CU traits (including lack of guilt and limited empathy) are associated with low parent PRS and less parental warm behaviours, as measured by the FMSS, direct observations, and self-report questionnaires (e.g. Pasalich et al., 2011; Hipwell et al., 2007). Longitudinal research has also supported this relationship as children who reported low parent warm behaviours on self-report questionnaires reported increased CU features 1 year later (Pardini et al., 2007). By contrast, a qualitative review by Eisenberg and colleagues (2006) found that 22 studies which had used both observational and self-report methods, had been able to support a relationship between parental warmth and support, and child prosocial responding. However, the authors also reported that seven studies had failed to find a significant relationship. As such, there is a stronger relationship between adolescent–parent relationship quality and antisocial behaviours as compared to prosocial behaviours. This finding further emphasises a link between understanding adolescent–parent relationship quality and improving adolescent psychosocial outcomes.

5.1.4 Significance of the Adolescent's Perspective

Adolescents provide a unique perspective on the family environment, which is predictive of psychological outcomes over and above parent reports (e.g. Boughton et al., 2016). The relative usefulness of parent, adolescent, and observer reports of parenting behaviours have been compared in various meta-analyses (Boughton et al., 2016). Research has consistently found that adolescents' reports of parenting behaviours, including of warm and critical behaviours, are uniquely associated with internalising and externalising outcomes

over and above parent reports (Boughton et al., 2016). It should be noted that there is little research assessing adolescent behaviours towards parents, as opposed to parent behaviours towards adolescents. There is also limited research addressing adolescents' *underlying* affective attitudes towards parents (Boughton et al., 2016).

Recent longitudinal studies suggests that parent-teen relationships are bidirectional, and adolescents play a significant role in shaping the emotional climate of the relationship. Understanding the attitudes which adolescents hold towards their parents, may further explain the impact of relationship dynamics on adolescents' psychopathology. For instance, in a 6-year longitudinal study, including 497 Dutch adolescents (average age was 13 in the first wave) and their mothers, both internalising and externalising symptoms predicted adolescents' self-reports of maternal behaviours (including warmth, criticism, and emotional overinvolvement) as well as the mothers' own self-reports of their critical behaviours over time (Nelemans et al., 2016). As suggested above, difficult adolescent behaviours may cause parents to become more critical and vice versa. Cognitive distortions inherent to many psychological disorders may also cause adolescents to view their parents as overly critical (de Vries et al., 2015).

In addition, the affective attitudes which adolescents hold towards their parents, are strongly associated with outcomes including wellbeing, delinquency and aggression (King et al., 2018; Levy, 2001). Adolescents who self-report a stronger sense of closeness to their parents are likely to report more positive wellbeing (King et al., 2018; Yuksek & Solakoglu, 2016). Moreover, adolescents' self-reported bond with their parent is significantly associated with externalising outcomes including delinquency and aggression (Levy, 2001; Ochoa, Lopez & Emler, 2007; Yuksek & Solakoglu, 2016). This is indicative that adolescent's psychosocial functioning is linked to their *own* affective attitudes towards their parents as well as *perceived* parent attitudes. It is important to note that these studies have assessed

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perceived closeness to parents as opposed to adolescent affective attitudes or behaviours, and have exclusively used self-report questionnaires. Research is needed to clarify the relationship of adolescent outcomes to *underlying* affective attitudes that may not be captured by self-report methods.

Taken together, these findings suggest that adolescents' reports provide unique information about the quality of parent-teen relationships. Adolescents also help to shape the quality of these relationships, through their own attitudes and behaviours as well as their perceptions of parent attitudes (Mcleod et al., 2007a; McLeod et al., 2007b; Hale III et al., 2016; Pinquart, 2017). It is vital that researchers and clinicians are able to comprehensively assess adolescents' perspectives, in order to improve clinical outcomes related to teen wellbeing and family dynamics.

5.1.5 Assessing RS from Speech Samples

The FMSS (Magaña et al., 1986) is a well-established method of assessing a participant's RS regarding a family member, and requires participants to speak uninterrupted for five minutes on their thoughts and feelings regarding a significant person. According to Gottschalk (1989) one of the original creators of this technique, the FMSS paradigm is unique in that it integrates self-report, interview, and observational assessment methods. For example, warm and critical comments about family members represent affective behaviours and coding their content, tone and frequency, which is involved in most FMSS coding systems, is equivalent to behavioural coding of family dynamics (Bullock & Dishion, 2007). As coding also takes into account the content of warm and critical comments as well as the frequency with which certain themes are discussed, coding FMSS narratives arguably involves elements of self-report and interview assessment techniques as well (Gottschalk, 1989).

The Family Affective Attitude Rating Scale (FAARS) provides a brief method for coding participants' FMSS and has been shown to capture parents' PRS and NRS towards their child (Bullock & Dishion, 2007). The psychometric properties of the FAARS have been evaluated in several studies (Bullock & Dishion, 2007; Pasalich et al., 2011; Waller et al., 2012). First, in a sample of parents of adolescents (*M* age = 17) followed over a two-year period, Bullock and Dishion (2007) found that parental PRS and NRS were correlated with established measures of parent-child relationship quality. Both scales discriminated between adolescents who displayed either high or low levels of antisocial behaviour and parental criticism uniquely predicted adolescents' antisocial behaviour 2 years later (Bullock & Dishion, 2007). These findings suggest that the FAARS scales provide a valid measure of parent-child relationship quality.

The FAARS has also been utilised with parents of toddlers (Waller at al., 2012) and preschool and school-aged children (Pasalich et al., 2011). Pasalich and colleagues (2011) included a sample of parents of children (aged 4 to 11) who were currently receiving treatment for externalising behaviour problems (*n* =150) or mood problems (*n* = 24). Both PRS and NRS scales were found to be internally consistent and were significantly associated with other measures of parent-child interaction, family dysfunction, and parental dysfunction (Pasalich et al., 2011). Higher PRS and lower NRS scores were associated with higher rates of child externalising problems. Another study by Waller and colleagues (2012) collected data from mother-child dyads at two and three years of age, from a high-risk community sample (*N* = 731). Maternal FAARS scales were again internally consistent and could be reliably implemented by trained coders. Likewise, the FAARS NRS and PRS scales were found to be significantly correlated with related measures and were associated with child externalising problems independently of other self-report and direct observations of parenting behaviour (Waller et al., 2012). Overall, these studies have provided strong support for the

reliability and validity of the FAARS method for coding parents' PRS and NRS regarding their child.

Although the reliability and validity of the FAARS have been supported in parents of children across various developmental stages (Bullock & Dishion, 2007), surprisingly the coding scheme is yet to be applied to teens' FMSS. There is evidence that the FMSS methodology is feasible and useful in adolescent populations (e.g. Przeworski et al., 2012; Schmidt et al., 2015). For example, in a study of 62 mother-child dyads (child age = 7 – 17), child EE was coded based on two-minute speech samples and were found to be internally consistent (Przeworski et al., 2012). Child EE was significantly correlated with OCD severity in a paediatric OCD sample (Przeworski et al., 2012). Furthermore, using a measure of *perceived parental* emotional overinvolvement and criticism, Schmidt and colleagues (2015) also found their FMSS coding scales to be internally consistent and significantly associated with adolescents' binge eating disorder, which was indicative of strong predictive validity. Finally, the FMSS Coherence Scale (Sher-Censor & Yates, 2012), which assesses the adolescents' ability to provide a coherent representation of their parent, also demonstrated acceptable psychometric properties in an adolescent sample (Sher-Censor et al., 2017). Overall, there is good support for the feasibility and usefulness of the FMSS paradigm in measuring adolescents' affective attitudes towards their parents (Przeworski et al., 2012; Schmidt et al., 2015).

An important limitation of two of these studies is that their coding of adolescents' FMSS assessed perceived parent criticism and child EE-Criticism, but not positive affective attitudes (e.g. Przeworski et al., 2012; Schmidt et al., 2015). A third study, using the FMSS Coherence Scale, examined both positive and negative affective attitudes using an 'acceptance/rejection' bidimensional scale (Sher-Censor et al., 2017). As reviewed above, rather than being opposite ends of the same spectrum of an affective attitude, NRS and PRS

may co-occur in high levels and are differentially related to youth outcomes (e.g. Greenlee et al., 2019). Furthermore, past studies have not explored the comparative usefulness of traditional questionnaire methods and the FMSS format. Research should examine the unique contribution which this measurement approach could make to the assessment of adolescents' affective attitudes, as compared to traditional methods.

5.1.6 Current Study

The aim of this study was to examine adolescents' perceptions of the parent-teen relationship using the FAARS method of coding their FMSS in order to evaluate the reliability and validity of this method of assessment. Participants completed a FMSS along with a range of questionnaires assessing affective attitudes and aspects of psychological functioning, including internalising problems, externalising problems, prosocial behaviour, and CU traits. In line with previous research (Bullock & Dishion, 2007; Pasalich et al., 2011; Waller et al., 2012) it was predicted that adolescents' FAARS PRS and NRS scales would be significantly associated with their reports on questionnaire measures of warm and critical parenting behaviours. Moreover, FAARS NRS was hypothesized to be positively correlated with measures of externalising problems and CU traits, while FAARS PRS would be positively correlated with measures of prosocial behaviours and negatively correlated with measures of internalising and externalising problems.

5.2 Method

5.2.1 Participants

Participants were 72 adolescents (68% female) aged 14 to 18 ($M = 16.56$, $SD= 0.13$), recruited from several high schools in Australia. Seventy nine percent of the sample lived in a regional area (Department of Health, 2019). The study was approved by a university ethics board, and all participants as well as their parents signed consent prior to their participation. Participants were predominantly Australian born (81%; none of the participants identified as

indigenous Australian) or born in a country where English is the primary language (12.1%).

Almost all participants were native English speakers (93.2%).

5.2.2 Procedures and Measures

5.2.2.1 Family Affective Attitudes Rating Scale

Adolescent affective attitudes were assessed using the FAARS (Bullock & Dishion, 2007). Adolescents were requested to speak for 3 minutes regarding their thoughts and feelings about their parent and how they get along together. Although adults speak for 5 minutes in the typical FMSS paradigm, 3-minute speech samples are more developmentally appropriate for adolescents (Bullock et al., 2005). Adolescents were taken to a private room and asked to speak uninterrupted without an experimenter present (Pasalich et al., 2011). The speech sample protocol used in this study was successfully piloted with 20 adolescents before commencing the research.

Speech samples were recorded using a digital voice recorder and later converted into wav audio files for coding. Two postgraduate research students received 15 hours training with a master coder, in the coding of speech samples, according to the FAARS manualised procedure. Neither coder was masked to the study aims and hypothesis, as coder 1 was the lead author. The FAARS manual (Bullock et al., 2005) was slightly adapted to include examples of phrases that were relevant to adolescents' speech samples. Coders listen to the audio file when they make their ratings. The FAARS utilizes a macro coding system in which trained coders are asked to provide global impressions of individual speech samples. Ratings are based on the strength and number of examples as well as the overall tone of the sample. Training included coding 20 samples obtained from the pilot testing phase. Items ($n = 5$) belonging to the NRS scale included "Critical regarding behaviour of target person" and "Reports of conflict with/anger or hostility toward target person". Items ($n = 6$) in the PRS scale included "Generally positive regarding target person's behaviour" and "Statements of

love/caring toward target person". A warmth item "reports of shared activities", that was not

included in two previous studies (Pasalich et al., 2011; Waller et al., 2012) but was included

in the original manual (Bullock & Dishion, 2007), was used this study after pilot testing

revealed it captured a common theme in adolescent speech samples. Items were rated on a

scale ranging from 1 (*one weak example*) to 9 (*three or more concrete examples*).

As in prior FAARS studies (Bullock & Dishion, 2007; Pasalich et al., 2011),

individual speech samples took between 7 to 10 minutes to code following training. Coding

meetings were conducted regularly to control for coder drift. Twenty five percent of the

sample was coded a second time by an independent coder to compute inter-rater reliability

ratings. Intraclass correlations (ICC) were strong for both PRS (.96; see Table 5.1) and NRS

(.87), suggesting a high level of agreement between raters. Scale scores were calculated by

obtaining the mean of items reflecting warmth and criticism (see Table B1; $M_{criticism} = 1.87$;

$M_{warmth} = 4.24$). Cronbach alpha values were within acceptable limits for both the NRS ($\alpha =$

.76) and PRS ($\alpha = .80$) scales. *Inter-item correlations ranged from* .06 *to* .96. There were

acceptable factor loadings, based on a confirmatory factor analysis, for items on the NRS (see

Table B2; range = .43 - .90) and PRS (range = .64 - .84) scales.

5.2.2.2 Externalising and Internalising Difficulties

The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) is a 25-item

questionnaire with five subscales: hyperactivity, externalising problems, peer problems,

emotional symptoms, and prosocial behaviour. In the current study we combined the

emotional and peer subscales into an 'internalising problems' subscale and the behavioural

and hyperactivity subscales into an 'externalising problems' subscale, and included the

prosocial subscale (Goodman et al., 2010). It has been suggested that the original subscales

have poorer discriminant validity than the broader scales in low-risk samples (Goodman et

Table 5.1

Cronbach alpha (α) estimates for internal and inter-rater reliabilities

	Internal reliability	Inter-rater reliability
Strength and Difficulties Questionnaire		
Internalising Problems	0.753	
Externalising Problems	0.755	
Prosocial Behaviour	0.653	
Inventory of Callous and Unemotional Traits	0.841	
Inventory of Parent and Peer Attachment	0.967	
Brief Dyadic Scale of Expressed Emotion		
Criticism	0.801	
Warmth	0.924	
Family Affective Attitudes Rating Scale		
Negative Relational Schemas	0.755	0.888
Positive Relational Schemas	0.801	0.954

al., 2010). All scales had acceptable internal consistency (emotion symptoms $\alpha = .75$, externalising symptoms $\alpha = .76$ and prosocial behaviours $\alpha = .65$).

5.2.2.3 Callous and Unemotional Traits

The Inventory of Callous and Unemotional Traits (ICU; Frick, 2004) is a 24 item self-report questionnaire which is designed to assess CU traits. The ICU has three subscales including callousness, uncaring, and unemotional; and a total scale score that was used in this study. Positively worded items were reverse coded and then all 24 items were summed to obtain a total score in line with Frick (2004). Adolescents were asked to indicate how well each statement describes them on a 4-item scale from 0 (*not true at all*), to 3 (*definitely true*). Cronbach's alpha indicated good internal consistency ($\alpha = .84$).

5.2.2.4 Brief Dyadic Scale of Expressed Emotion

The Brief Dyadic Scale of Expressed Emotion (BDSEE; Medina-Pradas et al., 2011) is a questionnaire measure which assesses the three main indices of expressed emotion:

criticism, warmth, and emotional overinvolvement. The revised version was used in this study as it assesses caregiver warm and critical behaviours from the adolescent's perspective, whereas the original scale addresses caregiver behaviours from the caregiver's perspective (Medina et al., 2008). The four criticism items (including "How critical is your parent of you?"), and the four warmth items (including "How warm is your parent towards you?") were rated from 1 to 10. Higher scores indicated greater perceived warmth or criticism. The BDSEE warmth ($\alpha = 0.92$) and criticism ($\alpha = 0.80$) scales demonstrated good reliability.

5.2.2.5 The Inventory of Parent and Peer Attachment

The IPPA (Armsden & Greenberg, 1987) is a self-report questionnaire designed to assess adolescents' perceptions of the degree of mutual trust, quality of communication, and the extent of anger and alienation in their current relationships. It consists of three distinct scales to measure individuals' attachment to parents and peers. This study only included the parent scale. The IPPA has a 5-point response format, and adolescents rate statements regarding their relationship with their caregiver (including "My parent accepts me as I am") using a 1 (*almost never or never true*) to 5 (*almost always to always true*) scale. The total attachment score was used in the present study, where higher scores indicate stronger attachments to caregivers. The scale demonstrated excellent internal consistency ($\alpha = .97$), consistent with previous studies (e.g. Li et al., 2019).

5.2.2.6 Verbal IQ

The Shipley vocabulary scale (Shipley et al., 2009) was administered to control for verbal intelligence. The Shipley-2 comprises 40 items across three subtests, including vocabulary, abstraction and block-patterns. Only the vocabulary subtest was used. Participants choose a definition that most closely represents a target word. The test is timed and must be completed in 10 minutes. The Shipley vocabulary test has acceptable internal

consistency and inter-rater reliability (Shipley et al., 2009) and is significantly correlated with the WISC-IV Verbal Comprehension Index (Reynolds et al., 2016).

5.2.3 Analytical Strategy

We were interested in whether adolescents' self-reports of *perceived* relationship quality and psychosocial outcomes (including internalising and externalising problems, prosocial behaviour, and CU traits), would be significantly associated with scores on FAARS PRS and NRS; both in terms of zero-order correlations and the unique variance contributed by the variables. In order to assess the reliability of the two FAARS scales, internal consistency and intra-class correlation estimates were calculated. The four psychosocial outcome scales, then the three self-report scales assessing relationship quality (including IPPA Attachment, BDSEE Warmth, BDSEE Criticism), were entered into separate hierarchical linear regression equations as dependent variables, with FAARS PRS and NRS scales simultaneously entered as independent variables, along with the control variables. This was to assess both the concurrent validity of the scales with existing measures as well as the utility of the scales as predictors of psychosocial outcomes. The covariates included in the regression equations because of their significant associations with dependent variables and theoretical importance were verbal intelligence, gender, and ethnicity. Step 1 included covariates only. Step 2 included the covariates in addition to the two FAARS scales.

We then examined whether FAARS scales would predict adolescents' psychosocial outcomes over and above scores obtained from self-report measures of relationship quality. The four psychosocial outcomes scales were entered into separate hierarchical linear equations as dependent variables, with FAARS PRS and NRS entered simultaneously with the questionnaire-based IPPA Attachment or BDSEE scales. To assess whether the FAARS scales improved our ability to predict psychosocial outcomes as compared to adolescent *perceptions* of *parent* warmth and criticism, only FAARS NRS was entered into the equation

with BDSEE Criticism, and only FAARS PRS was entered with BDSEE Warmth. Verbal

intelligence, gender, and ethnicity were entered as control variables. Step 1 included

covariates only. Step 2 included one of the three self-report scales belonging to the IPPA or

the BDSEE, and step 3 included the two FAARS scale. Given the number of regression

models, and the risk of inflated type 1 error, we considered adjusting probability values,

however research has suggested that corrections should not be applied during exploratory

analyses as it is better not to miss a possible effect (to avoid Type II error; Armstrong, 2014).

5.3 Results

5.3.1 Descriptive Statistics

Regarding the FMSS, on average participants were able to speak for close to the 3

minutes (*M* speaking time = 151 seconds, *SD* = 35.6 seconds). An examination of the scale

and item mean scores shows that the PRS items were rated more highly (Table B1; *M* = 4.42,

SD =1.61) than items on the NRS scale (*M* = 1.87, *SD* = 0.93). This suggests that adolescents

were more likely to speak positively of their parents than negatively.

5.3.2 Reliability

Internal consistency and inter-rater reliability estimates were used to assess the

reliability of the FAARS scales. There was adequate internal reliability for both the NRS (α =

.76; see Table 5.1*)* and PRS *(α = .80)* scales. These values are similar to those reported in

previous studies with parent samples (Bullock & Dishion, 2007; Pasalich et al.,2011).

Bivariate inter-item correlations within the NRS scale ranged from weak to strong (range .12

to .84). Bivariate inter-item correlations within the PRS scale ranged from weak to moderate

(range .25 to .60). Strong inter-rater consistency was indicated by the ICC; *NRS = .89, PRS =*

.95. Intraclass correlations were also computed for each of the 11 FAARS items and ranged

from .55 to .95. There was a significant moderate association between scales (*r* = -.52, *p* <

.01).

5.3.3 Concurrent Validity

To examine concurrent validity, we examined whether FAARS scales were significantly associated with scores on adolescents' questionnaire-based reports of parental criticism and warmth (BDSEE scales) and attachment to parents (IPPA). The FAARS NRS scale was significantly positively correlated with BDSEE criticism (see Table 5.2; $r = .51$, $p < .01$) and was significantly negatively associated with IPPA attachment ($r = -.57$, $p < .01$) and BDSEE warmth ($r = -.51$, $p < .01$). FAARS PRS was significantly positively associated with IPPA attachment ($r = .50$, $p < .01$) and BDSEE warmth ($r = .27$, $p < .05$) as well as significantly negatively associated with BDSEE criticism ($r = -.38$, $p < .01$). As shown in Table 5.2, FAARS NRS demonstrated unique associations with IPPA attachment ($\beta = -.43$, $p < .01$), BDSEE criticism ($\beta = .42$, $p < .01$) and BDSEE warmth ($\beta = -.37$, $p < .01$) subscales. FAARS PRS demonstrated unique associations with IPPA attachment ($\beta = .28$, $p < .05$) and BDSEE warmth ($\beta = .26$, $p < .05$) subscales.

5.3.4 Convergent Validity

We examined the relationships between FAARS scales and measures of psychosocial outcomes to assess the convergent validity of the FAARS. As shown in Table 5.3, FAARS NRS was significantly positively associated with externalising problems ($r = .52$, $p < .01$) and CU traits ($r = .43$, $p < .01$), and was significantly negatively correlated with prosocial behaviours ($r = -.40$, $p < .01$). FAARS PRS was significantly negatively correlated with externalising problems ($r = -.37$, $p < .01$) and CU traits ($r = -.46$, $p < .01$), and significantly positively correlated with prosocial behaviours ($r = .33$, $p < .05$). When included in the regression equations, verbal intelligence was uniquely associated with internalising problems ($\beta = -.32$, $p < .01$), prosocial behaviour ($\beta = .28$, $p < .05$) and CU traits ($\beta = -.27$, $p < .01$), while Gender was uniquely associated with internalising problems ($\beta = -.31$, $p < .01$). As shown in Table 5.3, FAARS NRS was uniquely associated with externalising problems ($\beta =$

Table 5.2

Relationships between FAARS NRS and PRS scales and adolescent self-reports of parent-teen relationship quality

| | IPPA[c] Attachment | | | | | BDSEE[d] Criticism | | | | | BDSEE[d] Warmth | | | | |
	r	B(SE)	β	95% CI	R^2 Change	r	B(SE)	β	95% CI	R^2 Change	r	B(SE)	β	95% CI	R^2 Change
FAARS NRS[a]	.57**	2.12 (0.56)	.43**	[-3.25, -1.0]		.51**	.55 (1.34)	.42**	[1.87, 7.24]		.51**	1.03 (0.77)	.37**	[-5.42, -1.17]	
FAARS PRS[b]	.19	0.23 (0.31)	.10	[-.85, .39]		.37**	.32 (0.28)	.14	[-.87, .24]		.33*	.19 (0.15)	.17	[-.10, .49]	
					.39					.28					.31

Table 5.3

Relationships between FAARS NRS and PRS scales and adolescents' self-reported psychosocial functioning.

| | Internalising Problems | | | | | Externalising Problems | | | | | Prosocial Behaviours | | | | |
	r	B(SE)	β	95% CI	R^2 Change	r	B(SE)	β	95% CI	R^2 Change	r	B(SE)	β	95% CI	R^2 Change
FAARS NRS[a]	.23	0.58 (0.55)	.15	[-.51, 1.67]		.52**	1.77 (0.48)	.45**	[.81, 2.74]		-.40**	-0.62 (0.26)	-.32*	[-1.14, -.10]	
FAARS PRS[b]	-.19	-0.23 (0.31)	-.10	[-.85, .39]		-.37**	-0.32 (0.28)	-.14	[-.87, .24]		.33*	0.19 (0.15)	.17	[-.10, .49]	
					.05					.29					.18

| | CU Traits | | | |
	r	B(SE)	β	95% CIs	R^2 Change
FAARS NRS[a]	.43**	2.36 (1.17)	.25*	[.02, 4.70]	
FAARS PRS[b]	-.46**	-1.82 (0.67)	-.34**	[-3.16, -.49]	
					.27

Note. [a]Family Affective Attitudes Rating Scale Negative Relational Schema scale; [b]Family Affective Attitudes Rating Scale Positive Relational Schema scale; [c]Inventory of Parent and Peer Attachment; [c]Brief Dyadic Scale of Expressed Emotion.*significant at the level $p < .05$, **significant at the level $p < .01$. R^2 change is the improvement in R square when a new predictor is added.

.45, $p < .01$), prosocial behaviour ($\beta = -.32$, $p < .05$), and CU traits ($\beta = .25$, $p < .05$). FAARS PRS was only uniquely associated with CU traits ($\beta = -.34$, $p < .01$).

5.3.5 Comparing the Predictive Power of the FAARS, IPPA, and BDSEE Scales

We were also interested in examining whether FAARS scales would be predictive of adolescents' psychosocial outcomes over and above scores obtained from questionnaire measures of relationship quality. No covariates were uniquely associated with IPPA OR BDSEE scales. As shown in Table 5.4, FAARS NRS demonstrated unique variance in the prediction of externalising problems ($\beta = .41$, $p < .01$), prosocial behaviour ($\beta = -.31$, $p < .05$), and CU traits ($\beta = .30$, $p < .01$) over and above the BDSEE criticism scale. In relation to the BDSEE warmth scale, FAARS PRS demonstrated unique variance in the prediction of externalising problems (see Table 5.4; $\beta = -.31$, $p < .01$) and CU traits ($\beta = -.39$, $p < .01$) over and above the scale. BDSEE warmth demonstrated a unique association with externalising problems ($\beta = -.32$, $p < .05$).

The same regression analysis was run but comparing FAARS scales with IPPA attachment in terms of their unique prediction of psychosocial outcomes. As shown in Table 5.4, IPPA attachment demonstrated unique variance in the prediction of externalising problems ($\beta = -.57$, $p < .01$), while FAARS NRS demonstrated unique variance in the prediction of externalising problems ($\beta = .36$, $p < .05$) and FAARS PRS demonstrated unique variance in the prediction of CU traits ($\beta = -.28$, $p < .05$).

5.4 Discussion

This study conducted the first examination of whether the FAARS of the FMSS was a feasible and useful coding tool for evaluating adolescents' affective attitudes in a community sample. Our main aim was to establish whether adolescents' affective attitudes provide unique information about parent-teen relationship dynamics, as compared to questionnaire

Table 5.4

Comparative prediction of adolescents' psychosocial outcomes from the FAARS and self-report measures of relationship quality.

	Internalising Problems				Externalising Problems				Prosocial Behaviours				CU Traits			
	B(SE)	β	95% CI	R^a	B(SE)	β	95% CI	R^2	B(SE)	β	95% CI	R^2	B(SE)	β	95% CI	R^2
IPPAᶜ																
Attachment	-0.46 (0.11)	-.57**	[-.67, -.24]	.24	-0.17 (0.11)	.04	[-.38, .05]	.21	0.07 (0.06)	.19	[-.04, .19]	.15	-0.42 (0.26)	-.22	[-.94, .09]	.20
FAARSᵃ NRS	-0.39 (0.57)	-.10	[-1.46, .68]	.01	1.42 (0.53)	.36**	[.37, 2.48]	.11	-0.46 (0.28)	-.23	[-1.03, .11]	.06	1.50 (1.28)	.16	[-1.10, 4.01]	.09
FAARSᵇ PRS	0.14 (0.30)	.06	[-.44, .72]		-0.18 (0.29)	-.08	[-.75, .39]		0.13 (0.15)	.12	[-.18, .44]		-1.48 (0.70)	-.28*	[-2.86, -.10]	
BDSEEᵈ																
BDSEE Criticism	0.06 (0.05)	.15	[-.04, .15]	.05	0.08 (0.04)	.23	[-.01, .17]	.19	-0.03 (0.02)	-.18	[-.08, .02]	.11	0.22 (0.11)	.25	[-.00, .44]	.10
FAARS NRS	0.48 (0.54)	.12	[-.60, 1.56]	.01	1.60 (0.47)	.41**	[.66, 2.55]	.12	-0.61 (0.26)	-.31*	[-1.13, -.10]	.07	2.79 (1.20)	.30*	[.40, 5.18]	.07
BDSEE Warmth	-0.15 (0.06)	-.32*	[-.26, -.03]	.12	-0.06 (0.06)	-.13	[-.17, .06]	.07	0.04 (0.03)	.16	[-.02, .09]	.08	-0.19 (0.13)	-.18	[-.45, .07]	.13
FAARS PRS	-0.06 (0.29)	-.03	[-.64, .52]	.00	-0.34 (0.29)	-.31*	[-1.28, -.12]	.08	0.29 (0.15)	.26	[-.00, .59]	.05	-2.07 (0.66)	-.39**	[-3.38, -.76]	.24

Note. ᵃFamily Affective Attitudes Rating Scale Negative Relational Schema scale; ᵇFamily Affective Attitudes Rating Scale Positive Relational Schema scale; ᶜInventory of Parent and Peer Attachment; ᶜBrief Dyadic Scale of Expressed Emotion.*significant at the level $p < .05$, **significant at the level $p < .01$. R^2 change is the improvement in R square when a new predictor is added.

 measures of perceived parenting. Results showed that FAARS PRS and NRS scales were internally consistent and could be reliably coded in a short amount of time following manualised training. In line with predictions, higher FAARS NRS was associated with higher externalising problems, more CU traits, and less prosocial behaviours. Higher FAARS PRS was associated with less CU traits. The FAARS scales were found to converge with established measures of adolescent–parent attachment and relationship quality, which provides evidence for the validity of the measure. Scores on PRS and NRS scales were associated with psychosocial outcomes over and above traditional questionnaire methods, suggesting that the FAARS method provides qualitatively different information than self-report questionnaires.

An important finding of this study was that the FAARS scales were significantly associated with important psychosocial outcomes including externalising problems, prosocial behaviour, and CU traits which is consistent with past research (e.g. Pinquart, 2017; Sher-Censor, 2015). Longitudinal research suggests that adolescents' psychosocial problems may lead to increased critical and reduced warm parenting behaviours, (based on parent self-reports) and that this association is mediated by adolescents' report of parenting behaviours (Hale III et al., 2016). Our results support these findings, by suggesting that adolescents' underlying attitudes provide unique information regarding the parent-teen relationship, which can help to explain maladaptive adolescent outcomes.

Interestingly, neither FAARS NRS nor PRS scales were significantly associated with internalising problems, which is inconsistent with recent meta-analytic findings showing that adolescents' reports of warm parenting behaviours were negatively associated with anxiety (e.g. McLeod, 2007a; McLeod, 2007b). However, we also found that teens' attachment to parents and teen reported parenting behaviours, as measured via questionnaires, were significantly correlated with internalising problems, which is consistent with this meta-

analysis. As explored below, these results suggest that the FAARS may provide qualitatively different information about relationship dynamics than questionnaire measures. It is possible that parents' and adolescents' affective attitudes are differentially related to psychosocial outcomes.

In support of the validity of the FAARS scales in adolescents, FAARS PRS and NRS were significantly associated with teens' scores on questionnaires assessing attachment and parental critical and warm attitudes. Previous studies with parent samples have also found that the FAARS PRS and NRS scales are significantly associated with self-report and observational measures of parenting dynamics (Bullock & Dishion, 2007; Pasalich et al., 2011; Waller et al., 2012). Conclusions reached during clinical assessment are considered to be more robust when there is strong agreement between assessment methods and between reporters (De Los Reyes, 2011).

Although the FAARS scales were associated with questionnaire measures of the parent-teen relationship, the scales made independent predictions of adolescents' psychosocial outcomes. Specifically, FAARS NRS was uniquely associated with externalising problems, prosocial behaviour and CU traits, and FAARS PRS was uniquely associated with externalising problems and CU traits, above and beyond the questionnaire measures of relationship quality. As above, this is suggestive that adolescents' behaviours towards their parents, and their reports of *perceived* parent behaviours, are differentially related to developmental outcomes.

5.4.1 Strengths, Limitations and Future Directions

Our findings suggest that the FAARS scales provide unique insight into understanding the quality of parent-teen relationships and adolescent outcomes compared with traditional questionnaire assessments. As the FMSS requires participants to talk uninterrupted for 3 minutes, the speech content is thought to reflect underlying affective

attitudes which are difficult to capture using questionnaire measures (Sher-Censor, 2012). Bullock and Dishion (2007) also argue that warm or critical remarks made during speech samples represent observable affective behaviours, so that coding NRS and PRS can be considered observational assessment of family dynamics. Further research is needed in order to better understand differences between the FAARS and self-report assessment measures.

Our findings should be understood in the light of some important limitations. Firstly, we used the BDSEE and IPPA, which assess perceived parent behaviours rather than adolescent behaviours towards parents. As stated above, this was due to the lack of available questionnaire measures which assess teen attitudes towards parents. Due to this limitation, it is unclear whether the differential relations between the FAARS, the BDSEE, and the IPPA and the adolescent outcome measures were due to the form of assessment, the construct being assessed, or perhaps both. Overall, there is a need for future research to provide greater clarity regarding why different assessment methods may be more or less strongly associated with adolescent outcomes.

Secondly, a related issue was that all adolescent outcomes were assessed through self-report questionnaires meaning that the effects of common method variance may have inflated or deflated the relationship of the BDSEE and the IPPA to adolescent outcomes (Podsakoff et al., 2011; Siemsen et al., 2010). These effects may help to explain why the adolescent self-reports of their relationship with their parents and the FAARS were differentially related to adolescents' outcomes. Future research should use procedural or statistical methods that can mitigate the effects of shared variance (such as using observational measurements of adolescent affective attitudes, or using parent reports of adolescent outcomes) to better understand the unique relationships of self-report questionnaires and the FAARS to adolescent outcomes.

Thirdly, participants in this study were predominantly native English speaking, thus there was low ethnic diversity. Thirdly, all participants were recruited from regional areas. Both of these factors limit the generalizability of our results. Future research should look at the usefulness of this tool in more diverse samples. Finally, it was beyond the scope of this study to collect data from parent reports which a) limited our measurement of adolescent psychosocial outcomes, and b) prevented us from comparing the predictive utility of adolescents' and parents' FAARS scale scores. Future research is needed to establish the unique information provided by these sources.

The results have important implications for the measurement of adolescent–parent relationship dynamics. It has long been acknowledged that a multi-method multi-rater approach to assessment improves the validity of findings (De Los Reyes, 2011). The FAARS is easy to administer and cost-effective, meaning that it may be appropriate for settings where non self-report methods have traditionally not been feasible, including community clinics and large-cohort research. As outlined above, another advantage is that it is able to capture underlying attitudes and to account for biases associated with questionnaire methods (Gottschalk, 1968).

This study's findings also have important clinical implications. Internal attributions which teens make about the meaning of their parents' behaviour shape their responses to them (Bullock & Dishion, 2007). These internal narratives, or attitudes, about the quality of the parent-teen relationship are often a focus in individual and family-based treatment models, as they can maintain teen psychopathology (Bullock & Dishion, 2007). In addition, having a deeper understanding of adolescents' perspective regarding their relationship with their parent, may help clinicians determine how to support parents in exploring how their own behaviours might be interpreted by their teen. Future research should examine the application and benefits of the FAARS to clinical assessment and treatment.

Research with parent-teen dyads is also needed to explore the reciprocal nature of parent-teen affective attitudes. Longitudinal research has shown that adolescents' reports of critical and warm parenting behaviours are associated with increased teen aggression, and that aggression also predicts critical parenting behaviours (Hale III et al., 2016). From the perspective of Patterson's (1982) coercion model, as children's behaviour becomes more hostile parents escalate their aggressive or harsh parenting, which in turn worsens children's behaviour (Patterson, 1982). Affective attitudes may provide important information about how parenting behaviours are perceived by adolescents, and the contribution which this makes towards exacerbating their externalising behaviour.

5.4.2 Conclusion

In conclusion, the results of this study provide the first evidence for the reliability and validity of the FAARS in assessing adolescents' affective attitudes regarding the quality of the parent-teen relationship. The significant associations between FAARS NRS and PRS scales and psychosocial outcomes highlights the importance of evaluating feasible tools to assess adolescents' perspectives of family relationships. Importantly, FAARS scales were uniquely associated with externalising problems, prosocial behaviours, and CU traits over and above questionnaire measures, suggesting that the FAARS coding tool provides unique information about family dynamics that may contribute to adolescent outcomes. On a practical level, the FAARS format is more feasible than other non-self-report methods, as it takes a relatively short time to code (7 to 10 minutes) and should be considered in clinical settings and large-cohort or longitudinal research.

Chapter 6

Study 3: Understanding strengths in adolescent-parent relationships: A qualitative analysis of adolescent speech samples.

Although adolescents' perspective of the parent-adolescent relationship uniquely predicts their mental health and wellbeing, there is limited research using qualitative methodologies to explore rich descriptions of adolescents' expectations, attitudes, and beliefs towards parents. The current study qualitatively analyzed adolescent narratives regarding their relationships with their parents. Seventy-two adolescents (68% female; M age = 16.56) provided three-minute speech samples that were examined using thematic analysis to understand key themes in adolescent–parent relationships from adolescents' perspectives. Overall, adolescents valued positive relationships with parents (involving emotional support and companionship), respected their authority, and looked to parents to role-model valued traits. Mentions of negative interactions were mostly absent or justified as normal and not serious. Thus, despite popular opinion, normative adolescent-parent relationships are largely positive and valued by adolescents. The implications of these findings for research and therapeutic interventions are discussed.

6.1 Introduction

Past developmental studies have focused on maladaptive family dynamics, and this has led to an emphasis on conflict, disagreements, and tension in adolescent-parent relationships in existing research. Conversely, most adolescents describe their relationships with their parents as high in warmth and low in conflict (De Goede et al., 2009). Accordingly, there is a need for researchers to explore normative adolescent-parent relationships in more depth. This includes exploring the attitudes, beliefs, and expectations that underlie adolescent-parent interactions. Qualitative analysis of adolescent–parent relationship dynamics will allow researchers to move beyond models that are "correlation-rich and explanation-poor" (Lester, 2013, p.3) and so to understand relational processes in normative adolescent–parent relationships, not just links to maladaptive outcomes.

6.1.1 Themes in current research on adolescent-parent relationship quality

When considering the quality of adolescent-parent relationships, researchers commonly consider key relationship dynamics such as closeness (which can refer to one's perception of intimacy in a relationship and to supportive behaviors including emotional support, instrumental support, and companionship), conflict (aversive interactions marked by high levels of negative affect), and control (demands that parents place on adolescents to behave in ways that are going to enable them to thrive in society; Pinquart, 2017) separately. Although they are often examined in isolation, adolescent perceptions of closeness and conflict with parents, and of parent control, are closely linked (De Goede et al., 2009; Hadiwijaya et al., 2017). Moreover, although negative aspects of the relationship are often the focus of developmental research, adolescents continue to value closeness with parents and generally respect their control (De Goede et al., 2009). Accordingly, researchers should explore which aspects of adolescent-parent relationships are considered most important by adolescents in community samples.

6.1.1.1 Closeness

Psychological researchers are often focused on maladaptive aspects of the adolescent-parent relationship, limiting understanding of the potential strengths in these relationships (Smetana & Rote, 2019). Despite this, adolescents are more likely to describe their relationships as "happy and pleasant" than to report having "turbulent" relationships marked by high levels of tension and low levels of closeness (De Goede et al., 2009; Rutter et al., 1976). Moreover, in qualitative research with Mexican-American and Cuban-American adolescents, adolescents characterized "good" relationships with parents as involving communication, instrumental and emotional support, expressions of caring, and relationship qualities such as trust and respect (Crockett et al., 2007). Further research is needed with more diverse populations to better understand underlying processes in close adolescent-parent relationships.

Developmental researchers have argued that closeness should be measured through the emotional tone of the relationship and level of interdependence (including emotional support, instrumental support, and companionship; Repinski & Zook, 2005). For example, research informed by attachment theory has found that when parents are warm and responsive towards adolescents' emotional states, adolescents view themselves as worthy of care, competent in mastering challenges, and able to manage difficult emotions, and view others as reliable and effective (Bretherton & Munholland, 2008; Moretti & Peled, 2004). Meanwhile, parent acceptance-rejection (PAR) theory postulates that individuals have an evolutionary imperative to seek affection from intimate relationships, as affection implies acceptance and closeness (Rohner et al., 2005; Rohner & Lansford, 2017). Thus, adolescents benefit from close relationships with parents that are marked by high levels of acceptance behaviors including emotional support, companionship, and instrumental support. Overall, to

have a nuanced understanding of normative adolescent-parent relationships then, it is essential that researchers examine adolescents' perceptions of closeness with parents.

6.1.1.2 Parent influence

Research on parent influence over adolescent behavior has further underlined the importance of adolescent attitudes and behaviors towards parents. Adolescents consider the type of issue being discussed when judging the legitimacy of parent authority (Smetana, 2010, 2011). They respect parent's right to set boundaries, particularly regarding moral (relating to others' welfare and fairness), conventional (the arbitrary norms that regulate appropriate behavior in different contexts), and prudential (regarding personal comfort, health, and safety) issues, but both parents and adolescents agree that adolescents should have more freedom over personal issues (such as who they spend their time with and what they wear; Smetana, 2010, 2011). Thus, levels of parent control are linked to adolescents' attitudes and beliefs towards the legitimacy of parents' authority.

Adolescents also regard parents as role models and mentors. Developmental theorists have argued that while adolescents look to peers for guidance on decisions such as what clothes to wear and how they spend time, adolescents value parents' advice regarding important future decisions, such as career choices (Laursen & Collins, 2009; Steinberg, 2001). Empirical research has also shown that adolescents see parents as role models in a variety of areas including work behaviors (including what type of work to be involved in), conflict resolution styles, and "how to be a good person" (Johnson et al., 2016; Wiese & Freund, 2011). Thus, despite their need for increased independence, adolescents continue to value parents' advice and guidance, particularly around prudential, moral, and conventional issues, and for decisions that pertain to the future.

Yet, a limitation of qualitative research on parent-adolescent relationships is that it generally considers important dynamics in isolation which has prevented researchers from

fully exploring how relationship dynamics are interrelated. For example, although adolescents generally agree that parents have the right to set boundaries regarding moral, conventional or prudential issues, they are less likely to endorse parent authority in critical or unsupportive relationships (Nelemans et al., 2020; Rothenberg et al., 2020). It is therefore important that qualitative researchers explore how adolescents integrate their attitudes, beliefs and expectations towards parents' control strategies and role modelling with their perceptions of the overall quality of their relationship.

6.1.1.3 Conflict

Although conflict is not common in adolescent-parent relationships, when disagreements or tension do arise adolescents experience more negative affect than parents (Mastrotheodoros et al., 2020; Smetana & Rote, 2019). Again, this points to the importance of understanding adolescent experiences in their interactions with parents. Negative interactions and tension in adolescent-parent relationships increase between early (typically ages 10 to 13) and middle (ages 14 to 17) adolescence, before declining again by late (18 until early twenties) adolescence, although serious conflict (prolonged disagreements involving high levels of negative affect and tension) is rare (De Goede et al., 2009; Smetana & Rote, 2010, 2019). In fact, high levels of conflict between adolescents and parents are associated with maladaptive outcomes and are generally indicative of poor relationships during childhood, rather than being a normative feature of adolescent-parent relationships.

Even so, when disagreements do occur adolescents experience more negative affect than parents. A recent study with 497 adolescents and their mothers and fathers over 6 years found that adolescents report greater conflict intensity than parents across early, middle, and late adolescence (Mastrotheodoros et al., 2020). Moreover, adolescents' reports of conflict intensity became increasingly negative from early to middle adolescence while parents' reports of conflict intensity remained stable. These findings are consistent with popular

developmental theories of adolescent-parent conflict. For example, emotional and cognitive changes that take place during adolescence, are assumed by maturational theorists to precipitate more complex and abstract reasoning skills as well as improved perspective taking (Laursen & Collins, 2009; Yurgelun-Todd, 2007). These developments result in a more egalitarian view of relationships and adolescents often seek to renegotiate their role in family relationships– which can lead to disagreements (Steinberg, 1989; Youniss & Smollar, 1985). Meanwhile, evolutionary theorists argue that the common cognitive, emotional, and physical changes during adolescence are functional and facilitate the process of individuation and increasing independence from parents (Steinberg, 1989; Youniss & Smollar, 1985). As such, adolescents may experience more negative affect than parents during disagreements as these disagreements indicate that their needs for increased independence and egalitarian relationships with parents are not being met.

Importantly, qualitative research has provided a contradictory view. In this research, parents were most likely to believe that disagreements and conflict with adolescents were related to social-conventional or moral issues, whereas adolescents were more likely to believe that disagreements related to "personal" issues (Smetana, 2010, 2011). As such, findings from qualitative research suggest that parents are more negatively affected by disagreements because they see negative interactions as rejections of their values and beliefs, whereas adolescents see disagreements as natural and even necessary. There is a discrepancy then between qualitative and quantitative findings on adolescent-parent conflict that needs to be explored further by researchers (Smetana, 2010, 2011). Researchers should continue examining how negative relationship dynamics are connected to underlying beliefs and attitudes held by adolescents and their parents.

6.1.1.4 Gender differences

Researchers have found that adolescent and parent gender can influence how adolescents perceive the overall quality of their relationship with their parents. For example, use of parenting strategies consistently differs between mothers and fathers, as mothers are assumed to have more responsibility for disciplining their adolescents compared to fathers, meaning that mothers are expected to demonstrate higher levels of behavioral control (e.g. Bazrafshan et al., 2016; McKinney et al., 2018; Uji et al., 2014). Mothers are also assumed to be more invested in maintaining positive family environments (Bazrafshan et al., 2016; McKinney et al., 2011; Uji et al., 2014).

Likewise, female adolescents are more flexible during conflict and more likely to resolve disagreements by submitting to others than male adolescents, suggesting that females should have less tension and disagreement with parents (Konrad, 2016). Meanwhile, when Mexican-American and Cuban-American adolescents were asked about "good" relationships with parents, females and males emphasized different aspects of these relationships (Crockett et al., 2007, 2009). Females were more likely to discuss fathers' strictness and mothers' conditional permissiveness, and spent more time than boys discussing open communication. Meanwhile, boys emphasized shared activities with fathers more than girls did (Crockett et al., 200, 2009). In sum, to facilitate an in-depth understanding of adolescent-parent relationship dynamics, it is important that researchers explore how gender can influence adolescents' and parents' attitudes towards each other.

6.1.2 Qualitative Assessment of the Adolescent-Parent Relationship

More use of qualitative methodologies can help developmental researchers to identify the attitudes, beliefs and expectations that underlie adolescent-parent relationships. Using self-report questionnaires family members can provide limited information about their thoughts, behaviors, or attitudes whereas interpretive analysis of qualitative data (such as

interviews or observed interactions) allows researchers to explore feelings, values, and subjectivities of individuals (Ganong & Coleman, 2014; Gilgun, 2012; Manning & Kunkel, 2014). In this way, qualitative research can help explain the meaning which adolescents and parents give to their interactions and is also able to provide information about the underlaying relational processes which contribute to adolescents' and parents' thoughts, behaviors, and attitudes towards each other.

Qualitative research has already contributed to the understanding of adolescent–parent relationship dynamics but there are two main limitations of existing literature. Firstly, qualitative research on adolescent perceptions of their relationships with their parents are often limited to specific populations, such as immigrants and children of separated parents (Crockett et al., 2007; Nixon et al., 2012) or to single domains of interest, such as conflict or parental control (Parkin & Kuczynski, 2012; Smetana, 2010). Despite this, the relational dynamics outlined above are highly interconnected. For example, when adolescents feel supported and valued by parents they are more likely to endorse their authority and are less likely to engage in serious conflict with them (Meeus, 2016, 2018). It is therefore important that researchers look at how these relational processes are linked, and not just consider them in isolation.

Secondly, adolescents in these studies discussed aspects of the relationship that had been chosen by researchers rather than those that were most salient to them. This approach may have contributed to an overemphasis on maladaptive aspects of the adolescent-parent relationship. A recent comprehensive review of the field commented that "studies of negative family relationships (conflictive relationships, hostile parenting, parental overcontrol) and their contributions to adolescent dysfunction continue to dominate the literature" (Smetana & Rote, 2019, p. 60). Conversely, most adolescents report having "happy and pleasant" relationships with their parents. Thus, researchers have assumed that conflict, tension, and

disagreements dominate adolescent-parent relationships and strongly shape adolescents'

perceptions of their parents, yet adolescents themselves do not emphasize negative dynamics

when discussing these relationships (Meeus, 2016, 2018). To fully understand adolescent-

parent relationship dynamics, it is important that researchers allow adolescents to discuss

those aspects of the relationship that are most important to them.

6.1.3 Adolescent Speech Samples Regarding their Perceptions of Relationships with Parents

One popular method of assessing individuals' underlying beliefs and attitudes towards

parents is the five-minute speech sample. Participants are given a prompt to discuss their

thoughts and feelings regarding the target person and how they get along together and are

then left to talk uninterrupted for five minutes (adolescents are only asked to speak for three

minutes; Sher-Censor, 2015). A variety of coding systems have been adapted to

quantitatively assess relationship domains, including warmth, criticism, and emotional over-

involvement, across age groups (Sher-Censor et al., 2015). More recently, speech samples

have been used to assess the emotional climate of adolescent–parent relationships (McKenna

et al., 2020; Przeworski et al., 2012; Schmidt et al., 2015).

For example, the speech samples that were qualitatively analyzed in this study have

already been used in a study which coded adolescent speech samples using the Family

Affective Attitudes Rating Scale (FAARS; McKenna et al., 2020). The FAARS is a

quantitative measure that allows researchers to score speech samples on items such as

"critical regarding *behavior* of a target person" (scores are based on the number of comments

made by adolescents). This study found that the FAARS scales were uniquely related to

adolescents' outcomes such as externalizing behaviors, prosocial behaviors, and callous and

unemotional traits over and above questionnaire measures of adolescent attitudes towards

parents. Overall, there is good support for the feasibility and usefulness of the FMSS

paradigm in measuring adolescents' affective attitudes towards their parents (McKenna, 2020; Przeworski et al., 2012; Schmidt, Tetzlaff & Hilbert, 2015).

Even so, there is potential to gain richer information from adolescent speech samples by using qualitative methods as opposed to standardized coding systems to code these samples. Qualitative methods allow researchers to explore the relational processes that inform adolescents' narratives about parents including the meaning of parent behaviors to adolescents. The speech sample format has benefits for researchers assessing adolescent affective attitudes towards parents as it allows adolescents to talk uninterrupted about aspects of the relationship that are most salient to them, as opposed to being prompted to focus on certain themes. Louis Gottschalk, who initially developed the tool with his colleagues (Gottschalk et al., 1958; Gottschalk & Gleser, 1979) theorized that asking participants to talk uninterrupted would maximize "their tendency towards projection of intrapsychic qualities, response sets, and attitudes" (Gottschalk & Gleser, 1969, p.ix), "…so that the speaker will be more likely to present evidence of his internal psychological states rather than a reaction to cues from the interviewer" (Gottschalk & Gleser, 1969, p.9). As such, information provided during uninterrupted speech samples is qualitatively different to information provided in survey questionnaires or traditional interviews, as adolescents are reflecting on the themes that are most relevant to them, not themes that have been prompted by an interviewer. Additionally, the content of their speech cannot be influenced by cues from an interviewer or other participants.

Thus, the five-minute speech sample method allows adolescents to speak broadly about aspects of the relationship that are most salient to them and in turn, has the potential to provide a more comprehensive and integrated understanding of adolescent experiences of parenting.

6.1.5 Current Study

This study used three-minute speech samples and thematic analysis to explore perceptions of adolescent–parent relationships held by adolescents between the ages of 14 and 18. We focused on the period of middle to late adolescence as research suggests that this is when adolescents begin to develop complex cognitive skills to facilitate increased independence and more egalitarian relationships, meaning that the nature of their relationships with their parents changes markedly from childhood and early adolescence. The main aim of this research was to understand how adolescents conceptualized relationships with their mothers and fathers.

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6.2 Methods

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During 2017 and 2018 we collected three-minute speech samples from 72 adolescents attending high schools in three Australian state, as part of a larger study on the usefulness of the Family Affective Attitude Rating Scale (FAARS), a novel method of coding affective attitudes, with adolescent populations (McKenna et al., 2020). The community sample of adolescents were asked to talk about their parent figure to explore normative adolescent experiences of adolescent–parent relationships. The larger study coded these speech samples using the two FAARS scales (negative relational schema and positive relational schema) to examine the quantitative relationships of these scales to questionnaire measures of adolescent outcomes (including internalising and externalising problems, prosocial behaviours and CU traits) as well as to explore the relative usefulness of these scales as compared to other self-report questionnaires of adolescent–parent relationship quality. The current research is a sub-study that used only the five-minute speech samples (and not the FAARS scales nor any questionnaire data) to conduct a qualitative analysis of adolescent perceptions of their relationships with parents.

6.2.1 Settings and Participants

Of the 72 adolescents, 68% were female and the mean age was 16.56 (SD = 1.13; age range = 14 – 18). Seventy nine percent of the sample lived in a regional area (Department of Health, 2019). Participants were predominantly Australian born (81%; none of the participants identified as Indigenous Australian) or born in a country where English is the primary language (12.1%). Almost all participants were native English speakers (93.2%).

The wider study employed convenience sampling to recruit high school adolescents living in three small Australian cities and surrounds. Multiple high schools in three Australian states were approached via email to request participation and three schools agreed to participate. Two of these schools were in rural settings (Department of Health, 2019). The three schools ranged from low (21st percentile) to average (71st percentile) socio-educational advantage based on factors such as parents' education level and occupation, geographic locations, and proportion of indigenous students (Australian Curriculum Assessment and Reporting Authority (ACARA), 2020). Based on the number of students, these schools were small to medium sized as compared to the average Australian high school (ACARA, 2020).

To participate in the wider study, all participants had to provide a three-minute speech sample about their relationship with their parents, thus all participants were eligible to be included in the current sub-study. We were interested in studying middle to late adolescents because this is a period when adolescents' needs in relationships with parents undergo significant change and the meaning of parent behaviours is likely to be different as compared to childhood (Steinberg, 2001; Laursen and Collins, 2009). Moreover, adolescents younger than 14 may struggle to describe their relationships with parents in sufficient depth while adolescents over 18 have left school, are expected to be less dependent on parents, and may even live away from them, meaning that the nature of their relationships with their parents' changes again.

6.2.2 Data Collection

Within the wider study a standardized set of questions was used to collect sociodemographic data as well as quantitative data about adolescent–parent relationships and socioemotional outcomes. Participants were then taken to a private room to provide a speech sample. The following information was then given to adolescents:

"*What I'm going to do is start this voice recorder and then step out of the room for 3 minutes. In that time, I'd like you to talk about your thoughts and feelings about your parent figure. If you could speak about what kind of a person your parent figure is and how the two of you get along together, that would be great. After 3 minutes I'll return to turn off the voice recorder. Do you have any questions?*"

Adolescents were asked to talk about the parent figure, including mother, father, carer or grandparent, who was most involved in taking care of their needs (79% of adolescents discussed mothers, 21% discussed fathers, and no adolescents discussed other primary caregivers). Adolescents were alone in a private room and their speech samples were recorded using a digital voice recorder. Speech samples were then transcribed by the lead researcher. Ethical approval for this research was obtained through the Human Research Ethics Committee at The Australian National University and all adolescents and their parents, gave their informed consent before participating. Information about the study as well as consent forms were e-mailed to teachers three weeks before the researchers visited each school and researchers collected completed forms from students before they were allowed to participate in the study.

6.2.3 Data Analysis

Our analyses of the speech samples followed the procedures for thematic analysis (Braun & Clarke, 2016). An advantage of the thematic analysis approach is that it can facilitate both inductive and theory-driven data analysis. Themes are derived from what is *in*

the data, as well as from the concepts and ideas that the researcher brings to the data (Braun & Clarke, 2012). We adopted this approach so that we could explore how key themes in past research on adolescent-parent relationships, such as conflict, closeness, and control, are interrelated whilst also capturing any themes that have not been well-researched in the past but which may be important to adolescents themselves.

Speech samples were transcribed and read multiple times by the lead author (SM) to establish common patterns across narratives. Preliminary analysis focused on identifying participants' beliefs about and attitudes towards their parent, drawing on pre-existing themes from the literature such as control, conflict, and closeness (Smetana & Rote, 2019). Preliminary codes were shared with co-authors (DP and AO) to discuss initial themes. A number of theoretical frameworks (including attachment theory, social relations theory, maturational theory, and evolutionary theory) were used to deductively develop themes, but no one framework was able to encompass the patterns of meaning in the data. As such, a second round of inductive coding was conducted. Codes were then examined to identify broader patterns of meaning and were collated to establish themes. Themes established by lead author (SM) were reviewed by co-authors and refined. Constant comparison of similarities and differences between themes was used to identify links between themes and to condense themes that overlapped.

The primary researcher and author DP are registered psychologists experienced in working with parents and adolescents in a clinical role. Clinical psychological perspectives emphasize that behaviours, cognitions, and emotions that characterize interpersonal interactions are reciprocally related within relationships and are thereby best explained by dyadic processes. Author AO is a qualitative methodologist with experience conducting in-depth research with parents and emphasizing the social and cultural norms underlying parenting beliefs. As an inter-disciplinary team we hold different practical and theoretical

sensitivities that impacted on the organization of data into themes. In particular, psychologist team members were oriented towards individual and relational processes in adolescent–parent relationships whereas the qualitative researcher grounded interpretation in understandings of cultural norms such as gender.

All identifying information was removed from speech samples before coding to ensure confidentiality. We used NVivo 12 (QSR International, 1999) to assist in the management and systematic categorization of data as well as to document the analytic process.

6.2.4 Data Quality and Limitations

Speech samples used in this study were collected as part of a larger quantitative study. A limitation of using secondary data in qualitative research is that the data is collected for purposes different than the objectives of the current study (Sherif, 2016). These qualitative data were originally collected to explore empirical relationships between the FAARS scales and questionnaires measures of adolescent outcomes (McKenna et al., 2020). This study was designed to explore whether the FAARS coding system was feasible in an adolescent population and whether FAARS scale scores were uniquely associated with questionnaire measures of adolescent–parent relationship quality and measures of adolescent outcomes including internalising and externalising problems (McKenna et al., 2020). As such, decisions about research settings, participant characteristics, and data collection were made with different research goals in mind than those of the current qualitative study. Despite these limitations, secondary data can allow researchers to broaden or deepen knowledge gained from a dataset and so provide a more comprehensive understanding of a given topic (Broom et al., 2009). The question asked of participants was broad, allowing for further analysis of responses.

Despite these important contributions, our findings should be understood in light of some important limitations. Firstly, all adolescents in our sample came from regional high schools in Australia and were predominantly Caucasian and native English speaking. These factors limit the generalizability of our results. Secondly, as we were using secondary data, we were unable to ask follow-up questions and to clarify key aspects of our data; for example, what makes a good adolescent–parent relationship. As such, we inferred which aspects of the adolescent–parent relationship were important based on the themes that were most frequently discussed. Further qualitative research is needed to explore adolescents' explicit beliefs about what makes a good adolescent–parent relationship. Previous research has explored this question in Mexican and Cuban American adolescents, but this research did not explicitly address conflict and was limited to a specific population (Crockett et al., 2007, 2009).

6.3 Results

Although it is commonly thought that adolescents desire complete independence, adolescents in our sample described valuing many aspects of their relationships with their parents, including emotional support, closeness, and authority. Far from seeking to isolate themselves from parents, as is often assumed, adolescents described valuing their friendships with them, and were resentful or hurt if they did not feel understood by them. Most described their parents as role models and there was a relatively small amount of negative and conflict-laden narrative in the data. Although there are similarities between adolescent–mother and adolescent–father relationships, emotional support appears to be more important in relationships with mothers, whereas shared activities are key to relationships with fathers. Below we discuss each of these findings, including examples from the data.

6.3.1 Theme #1: Closeness

Adolescents frequently discussed the importance of having positive and supportive relationships with parents. Emotional support from parents was often identified as an important aspect of the relationships, as adolescents believed that parents should play a role in problem solving and soothing difficult emotions, and in helping them to understand difficult experiences. Support from parents also served another important function, by helping adolescents to feel respected and cared for by parents. Time spent together, along with shared interests, personality traits, and sense of humor also contributed to a sense of being able to "get along" with parents. Thus, closeness with parents was linked to being able to go to parents with problems, as well as being accepted by parents in a more general sense.

Subtheme #1: Emotional support

Emotional support was consistently identified as an important aspect of the adolescent–parent relationship. Adolescents frequently commented on whether they could *"talk about anything"* with their parent, as they valued supportive and non-judgmental interactions regarding emotions. Adolescents also spoke about the functions of this emotional support, often suggesting that it was cathartic to discuss emotions with their parents, and that parents also helped to problem solve and identify ways to manage their emotions.

> *"Like you have a problem get it off your chest, always someone there to talk to you about it, get it off your chest and then see ways to get through it."*

Adolescents often suggested that they would prefer to talk to parents rather than peers, as they were seen to be more reliable and supportive. In contrasting her relationship with her parent to those with her friends, one participant commented that friends had *"turned their back…when I told them things"* whereas her parent was "*always there and she's never going to be the one to turn her back on me"*. Adolescents commonly felt that parents provided them with a safe space to express their emotions. They reported that parents were

able to soothe adolescent emotions, particularly difficult emotions, partly through the process of problem-solving and listening. The process of *"getting it off your chest"* was seen by many adolescents as soothing and parents often appeared to provide a supportive environment for this purpose.

In line with adolescents perceiving emotional support to be an important aspect of adolescent–parent relationships, teens often appeared resentful or hurt when they believed that parents were not able to recognize their emotions.

> *"So my mum is the type of person who cares about my feelings only if I express them … she doesn't actually ask about anything like that [feelings], it's only if she sees I'm feeling down..."*

Adolescents looked to parents to help them identify their own emotional experiences, especially when they were unable to express their feelings. It was important for parents to be available for adolescents to discuss their problems as needed but, adolescents also wanted parents to reach out when they were unable to identify or communicate their problems. One adolescent commented *"she knows when I am upset and she'll always talk to me about it"*.

In turn, adolescents recognized that their parents also had emotional needs. Some adolescents felt that sharing their emotions put a *"burden"* on parents. One adolescent commented that she told her parents *"most things"* but sometimes did not confide in her mother because *"she has issues that are much bigger than mine"*. In the speech samples, adolescents frequently balanced their need for emotional support with their parent's own emotional needs, reflecting on the ways in which their need for emotional support may contribute to parent stress.

Suggesting that they value reciprocity, many adolescents reported that it was important for them to *"be there"* for their parents. One teen suggested that he wanted to "*be there as much as she is there for me"*, suggesting that he saw emotional support as a mutual

need in the relationship. Adolescents were empathic towards their parents and felt a sense of responsibility to provide them with emotional support when needed. In the speech sample below, this adolescent is expressing concern about her parents' wellbeing and suggesting that she and her sister play a role in helping her Mother to cope with difficult experiences.

> *"Me and my sister just sometimes help her out when she feels down… because most of the time we are the one who is sad not our mum and she endures a lot in her life and I want her to just be happy in the world."*

These descriptions of emotional support as a reciprocal process in adolescent–parent relationships sometimes involved fathers, although most adolescents reported that they were more likely to confide emotions to their mothers. Depictions of fathers were more likely to involve seeking advice and support regarding practical issues such as homework. In the speech sample below, one adolescent explicitly described the difference between the support that he looks for from his mother and father.

> *"I guess I will probably talk to my mum rather than my dad about very personal matters, but I would go to my dad for educational advice as well as any advice whether it was getting a job or doing something… if it was something very, very personal I would probably ask my mum."*

Furthermore, although both males and females valued emotional support from parents, the type of support they looked for differed in meaningful ways. Males appreciated opportunities to get problems *"off your chest"* suggesting they were looking to soothe and problem solve difficult emotions. By contrast, females often wanted parents to help them manage shame and embarrassment around negative experiences.

> *"I can trust her with a lot of things, especially because I know that being a woman that she has experienced some of the things that I have gone through and she*

knows me as a person more than my dad… my dad refers to me as complicated and

we can't hold a conversation but with me and my mum we could talk for a long time."

Again, whereas males looked for help with problem solving and soothing difficult

emotions, females looked to parents to provide a safe environment to discuss emotions to

help them to feel understood.

Overall, emotional support from parents was seen as important by most adolescents in

our sample as it served a number of functions. These included soothing difficult emotions and

helping them to understand their own emotional experiences. Yet, emotional support was also

seen as a reciprocal process, and adolescents expressed the need to provide some level of

emotional support to parents. Adolescents were more likely to seek support from mothers,

and there were key differences between males and females regarding the type of emotional

support that they asked for.

Subtheme #2: Companionship

Adolescents' discussions of emotional support were often intertwined with narratives

about how close they felt to their parents. Consistent emotional support was linked to more

trust and closeness in the relationship. One adolescent commented that *"our connection has*

grown stronger over the years as I have got more comfortable discussing my feelings with my

Mum". This teen is suggesting that supportive conversations around emotions have led to

more closeness in her relationship with her Mum. Most adolescents linked non-judgmental

and supportive interactions around emotions to trust and intimacy with parents. When

adolescents reported issues around trust and emotional support, they also often described a

relationship that lacked intimacy.

> *"So me and my Mum like we do get along pretty well, just we do have our ups*
>
> *and downs, I feel like I can't talk to her about some things, I just feel like I am going*
>
> *to get judged… I just like I'm not that close with her…"*

Closeness was also linked to the quality and frequency of time spent with parents. Adolescents often compared their relationships with their parents with friendships, suggesting that it was important for them to feel as though they could relate to their parent and enjoy time together.

> *"We don't really have many awkward moments because we can chat a lot, we have a lot of common interests, her taste in music has rubbed off on me."*

> *"Together we get along very well, we are very similar in a lot of ways he likes to come along and watch me at my sports and we like to go and play squash every week."*

Adolescents felt that it was important to share interests, personality traits, and sense of humor with parents, as they created opportunities for bonding and led to a sense that they could *"get along"* with their parent. Importantly, shared rituals, such as going shopping every Friday, also led to a sense of closeness, suggesting that *any* scheduled time with parents is beneficial. Overall, when adolescents felt that they were able to *"get along"* with parents and to spend time with them regularly they felt more respected and cared for by them, suggesting that similarities, shared interests, and shared activities are strongly linked to closeness in adolescent–parent relationships.

Shared sense of humor and shared personality traits were described as aspects of closeness in both adolescent–father and adolescent–mother relationships, but the same did not appear to be true for emotional support and time spent together. Adolescents were more likely to confide emotions in mothers than fathers, as they saw mothers as more caring and more trustworthy. By contrast, adolescents were more likely to share activities such as sport and homework with their fathers. As such, the ways this closeness was built varied based on parent gender.

Whereas conflict was more frequent in father-son dyads (as will be explored below), daughters were more likely to report that their father *"did not understand them"* and often attributed this to gender differences. In the sample below, one female is commenting on their lack of similarities with their father and the impact this has on their relationship.

> *"My dad's, we don't really get along that well, I've always found that like he doesn't really understand me and I've always thought it was because I am a girl he's a boy... I don't really know how I feel towards him like I love him to death obviously."*

Again, this speaks to the importance of similarities in adolescent–parent relationships, from the perspective of adolescents. The small number of teens who reported poorer relationships with their parent, tended to describe feeling that they could not relate to their parents, felt misunderstood, and also experienced more conflict. Overall, emotional support and time spent together as well as shared sense of humor, interests, and personality traits were most commonly attributed to close adolescent–parent relationships.

6.3.3 Theme #3: Role Model

Connected to a sense of closeness many adolescents saw their parents as role-models, particularly in dimensions such as relationships with others, schoolwork, and careers. Cultural norms appear to shape this influence, as there was a pattern of values that were frequently described by most adolescents and these patterns appeared to be gendered. As explored below, mothers were often praised for being emotionally supportive, whereas fathers were praised for being hard-working and providing instrumental support to the family. Mothers in particular were frequently described as *"caring"* and adolescents often believed that they *"put others before"* themselves.

> *"Yeah if I aspire to be anyone I aspire to be my mum… she's got so much pressure on her and she still has time to make sure you're ok and look after my mental*

health and my sister's and deal with my dad's work problems. It's just like she's

always making time for everybody else and she rarely has any time for herself."

Unsurprisingly, adolescents were particularly attuned to how their parents model behaviours in the family setting, such as treatment of other family members. Adolescents valued parents who *"create a very good environment at home"* and admired behaviours that were focused on caring and maintaining relationships. The types of behaviours that were valued and aspired to were gendered. Mothers in particular were valued for providing a *"positive"* home environment by treating all family members with respect and care.

Adolescents also admired parents, particularly fathers, who were seen to be *"hard-working"* at jobs outside of the home. They were sensitive to the sacrifices that their parents made for them and highly valued parents who were seen to spend long hours at work or to travel often for work. A strong work ethic was admired in both mothers and fathers; but adolescents were more likely to describe fathers as hardworking, just as mothers were more likely to be described as caring.

"I have a lot of respect for him he is a very hard-working kind of person… I

love him a lot and he worked very hard as a person and he never does anything like

he never takes shortcuts he always you know does things properly."

Again, adolescents had a shared set of values, including caring, self-sacrificing, and hard-working that appeared to reflect cultural norms. Mothers and fathers appeared to have different roles in the family and were admired for different reasons. Although not all adolescents described their parent as a role model, those who did not describe their parent in such a positive light tended to draw on similar sets of values. Some participants described parents who were not generous or hard-working, and often depicted these behaviours as selfish.

"Just like he loves me he can be great but yeah he's just not really you know the role model kind of parent, one that everyone would be striving to be like ...doesn't really care about what anyone else thinks...doesn't really care about what I think."

This teen is suggesting that the quality of their relationship with their father has been negatively affected because their parent does not behave in valued ways. Similarly, in some cases mothers were criticized for not showing care towards other family members, even when the adolescent understood the rationale for the behaviours. One teen commented *"I love my Mum but she always bags out my Dad...you know he has done bad things"*. This is suggestive that cultural norms shape the way adolescents judge parent behaviours and when parents do not act in ways that are consistent with these norms, including by being caring or hard-working, adolescents become critical of them and the quality of their relationship suffers.

Overall, adolescents admired mothers who were seen to be caring and to create positive family environments, whereas fathers were admired for being hard-working. When parents did not display these valued traits, adolescents became critical of them and the quality of their relationships appeared to be poorer.

6.3.4 Theme #4: Authority

Adolescents respected parents, appreciated their emotional bond, and sought their advice. This may help to explain why adolescents included descriptions of parental rule setting in their narratives that were largely sympathetic. In general, adolescents saw parents' rules and expectations as important and even justified rules that they disagreed with as a sign that parents *"want the best"* for them. One adolescent commented that setting firm boundaries was *"a good way to raise me"* as *"you learn from that and you never do it again that's how it works"*.

Relatedly, adolescents often saw expectations as a sign of caring and generally strived to meet them even when it was *"challenging"*. Several adolescents commented that there was *"too much pressure"* or that parents were "*too hard*" on them, but they were often likely to justify their parents'' expectations with statements such as *"it's just normal I guess"* or *"they just want the best for me"*.

> *"She'll always be there by my side and she always wants me to try my hardest which can be really challenging… when I can't do my best and I'm like not able to complete something the best I can… on to that she is really hard on me like she wants me to do well it's just normal I guess."*

As such, parent expectations were overwhelmingly seen as a positive aspect of the relationship, even when they caused adolescents stress. Moreover, expectations often pushed adolescents to get the *"best out of"* themselves. Having said this, respect for parent rule setting and expectations was often linked to perceived levels of trust and supportiveness. As shown in the speech samples below, when adolescents felt ignored or misunderstood by parents they were less likely to be respectful of parent boundaries.

> *"I feel like she still doesn't trust me and she always thinks of the worst thing that is going to happen. If I like catch the bus from work she picks me up because she thinks I am going to get raped or harassment from older men."*

> *"We just couldn't see eye to eye on some things… she's very old fashioned and traditional in the way she thinks things should be done… I'm very modernized."*

As such parents' rationales for setting boundaries were important to adolescents. When they felt that parents were supportive of them and trusted them, they were likely to be respectful of their parents' rules. By contrast, if they felt that parents were being overly strict or demanding, they were more critical of their rule-setting. One adolescent commented that *"my parents are really respectful of my decisions"* and *"never push me to do anything I don't*

want to do". When adolescents believed that their parent was supportive of them, they were more likely to respect rules, even if they did not agree with them, whereas adolescents who felt misunderstood or not trusted by parents were likely to be more resentful of parent boundaries.

Fathers were more likely to be seen as *"stubborn"* as compared to mothers and more likely to create rules and expectations that adolescents found overwhelming or not in their best interests. Sons were more likely than daughters to believe that there was "too much pressure" on them. This may indicate that males have less perceived agency in adolescent–parent relationships as compared to females, or that parents create stricter boundaries for males as compared to females.

Although they valued closeness with parents and parent rule-setting, adolescents also described managing the relationship to allow for some level of autonomy. One adolescent noted that, "*I do like my privacy"*, suggesting that she occasionally tried to manage the knowledge that her parents had about her activities. Another adolescent commented that *"I get scared to tell her the whole story because I don't want her to think bad things"* suggesting that she is regulating the amount of information she discloses to her mother. Setting such boundaries, adolescents aim to manage parental perceptions and influence.

Overall, adolescents mostly respected parent rules and expectation, even when they felt overwhelmed. Parents' rationales for setting rules were important and adolescents were less likely to respect boundaries if they did not think that their parent had their "best interests at heart" or felt that rules were linked to a lack of trust.

6.3.5 Theme #5: Conflict is not the norm

For the most part, there were relatively few mentions of conflict in the speech samples. Many adolescents did not comment on negative interactions with parents and those that did often only made brief comments that were often followed by justifying statements

such as *"obviously kids and parents fight"*. In downplaying or normalizing negative aspects of their parental relationships, adolescents commonly attributed disagreements to individual differences and saw it as natural that they would have different opinions and values to their parents.

> *"I can talk to her about almost anything, but she has her opinions on things that are very different to mine and neither of us are really ok with changing those opinions."*

This adolescent does not elaborate on the effects of these differing opinions and presents the case as a matter of fact. This is reflective of the overall tone of most adolescents in our speech sample when discussing conflict. They wanted to be able to relate to parents and be on the *"same page"* as them, but they also saw disagreement as normal and therefore not serious.

Another factor that appeared to reduce the perceived severity of arguments, was the ease with which adolescents felt they could resolve them. When describing a recent conflict with her Mum, one teen explained, "*I just like went to my room for a few minutes and came back later and I sincerely apologized"* which implies that she feels that she has agency in the relationship and is able to use skills such as apologizing and giving herself time to calm down, to resolve disagreements. Another female commented that "*I listen to her, she listens to me, we never really argue and if we do then we get over it"*. Again, this teen does not appear to see the tension in the relationship with her mother as serious, as she is confident that she and her mother will be able to resolve differences easily.

There were a small number of participants who reported negative relationships with their parents. Generally, males described conflicts as having more serious implications for their relationship with their parents than females did. Additionally, fathers were seen to be more *"stubborn"* than mothers and relationships with fathers generally appeared to be more negative in quality. In father-daughter relationships this was due to perceived lack of

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similarities. Father-son relationships were more likely to involve serious conflict compared to other adolescent–parent dyads.

> *"He probably always thinks he's right which is hard for everyone else in the house, because if he's never wrong then we are always wrong."*

> *"It is hard for us to get along but during last year we had a giant fight which I felt very threatened by and that tore us apart a lot."*

These samples reveal the ways adolescent males can reflect on parental relationships, suggesting that when they feel unheard or threatened by their fathers, conflict can be difficult to resolve. Relatedly, females in our sample generally conveyed a belief that it was important for them to try and understand their parent's perspective.

> *"But now that I've got older and I have matured a little bit I have been able to see things through her eyes and kind of realize that maybe she was right a little but still probably not with everything."*

Overall, females tried to see "*eye to eye*" with parents by attempting to be more understanding of their beliefs, but they also expected parents to show understanding towards them. Although this expectation of relationships functioning as a reciprocal process was common throughout, females were more likely to express and explain this belief in their narratives.

In a few samples, increased adolescent understanding of their parent's beliefs and values appeared to have led to increased resentment and conflict within the relationship. In relationships perceived by adolescents to be highly critical and unsupportive, increased perspective that comes with maturity appeared to lead to more distance between parents and adolescents. In the sample below, one participant discusses how the transition from childhood to adolescence enabled them to develop different values from their parent and to be more critical of them.

"Not to say she was completely horrible, I guess when you are younger your mother is your mother and you just go with it, but then when you get older you develop a sense of right from wrong, all the things she did I did start to see how wrong it was."

Overall, adolescents in our sample did not often discuss conflict with parents and downplayed the importance of negative interactions when they did occur, but only in the context of otherwise supportive relationships. By contrast, adolescents saw conflict as negative or corrosive when it occurred with a parent who was perceived to be critical of them and to have a poor understanding of them. Fathers and sons appeared to have particular difficulty resolving conflict.

6.4 Discussion

This study contributes to a growing body of research exploring the meaning of adolescent–parent relationships from adolescent perspectives (Crockett et al., 2007, 2009; Smetana, 2010). A particular strength of our research was that adolescents provided a broad overview of the quality of their relationships with their parents, rather than focusing on single domains of interest, allowing us to explore the interconnectedness of key relationship dynamics. Additionally, our method of collecting data allowed adolescents to explore aspects of their relationships with their parents that were most important to them, as opposed to topics that had been chosen by researchers. This allowed us to explore whether conflict, disagreements and tension are truly dominant in these relationships.

Adolescents in our sample valued closeness with their parents, generally respected their parents' authority and often looked to their parents to role-model valued traits such as caring and hard-working. Mentions of conflict and negative interactions were generally absent from the narratives collected for this project or were followed by justifying statements such as "it's normal". Thus, data from our speech samples suggests that adolescent–parent

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relationships are generally valued and seen as positive by adolescents, which contrasts with quantitative findings focused on conflict within these relationships.

6.4.1 Closeness

Adolescents frequently discussed the importance of having positive and supportive relationships with parents. Consistent with attachment theories of adolescent-parent relationships adolescents suggested that consistent and responsive emotional support from parents helped to build trust and respect in the relationships. It also served another important function, as supportive communication around emotions also contributed to a sense of being able to "get along" with parents. Time spent together, along with shared interests, personality traits, and sense of humor also contributed to a sense of being understood and valued by parents. This is consistent with PAR theory that acceptance behaviors from key attachment figures are necessary for individuals to develop a positive sense of self. Thus, whilst past research has tended to focus on negative aspects of the adolescent-parent relationship, our research suggests that adolescents are more likely to emphasize closeness with parents.

6.4.1.1 Emotional support

Adolescents in our sample saw emotional support from parents as important and were often resentful or hurt when they felt that parents were unable to understand, soothe, or problem solve difficult emotions. This is consistent with attachment research showing that responsive and supportive parenting continues to be important across adolescence (Sutton, 2019). Yet, in contrast to most developmental theories of adolescent–parent relationships, including attachment theory, adolescents often commented that they preferred to seek emotional support from parents as compared to peers. Steinberg (2001) suggests that although adolescents seek peer influence over personal issues, such as what clothes to wear, adolescents continue to rely on parents for support around "important" issues such as

decisions about the future. This may help to explain why adolescents in our sample preferred to seek emotional support from parents when they were experiencing challenges even though they may also be seeking more independence from them.

Social relations theorists suggest that underlying power structures mean that parents will always have a greater responsibility to provide support and care in healthy adolescent–parent relationships than adolescents (Laursen & Collins, 2009; Steinberg, 2001). Still, adolescents saw emotional support as a reciprocal responsibility and felt it was important to help parents when they perceived that they were stressed or overwhelmed. This is consistent with findings that adolescent–parent relationships become more egalitarian over time (Branje, 2018).

Consistent with past research, mothers were seen to provide more emotional support than fathers. These differences between adolescent–mother and adolescent–father relationships generally appear to be consistent with cultural norms. Relationships with mothers are closer and they are seen to be affectionate and supportive, whereas fathers provide instrumental and financial support (Crockett et al., 2007; Crockett et al., 2009). There were also key differences between the forms of emotional support that females and males reported they needed, with males looking to soothe difficult emotions whereas females wanted parents to reduce shame associated with negative emotions or experiences by facilitating supportive conversations. Again, this has been reported elsewhere (Sánchez-Núñez et al., 2008; Smetana & Rote, 2019).

6.4.1.2 Companionship

Again, an important role of emotional support was enabling adolescents to manage difficult emotions, but emotional support served another important function, which was to increase the overall quality of adolescent-parent interactions. Adolescents in this study suggested that emotional support, time together, shared sense of humor, and shared interests

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all led to increased closeness with parents by creating a sense that they could "get along" with parents. This finding was consistent with PAR theory (Rohner et al., 2005; Rohner & Lansford, 2017) that posits individuals value displays of affection from others as it allows them to feel accepted and valued, and that acceptance from parents is often most important as relationship with parents are generally the key attachment figures during childhood and adolescence. Thus, although forms of bonding that are common in childhood, such as physical affection and play may decline during adolescence these declines do not reflect adolescents' decreased desire for closeness but rather that the mechanisms through which they build and maintain this closeness have changed.

6.4.2 Role-modelling

Additionally, adolescents felt that their parent's influence was important and they had consistent expectations about behaviors that they wanted parents to demonstrate. These expectations were gendered, as mothers were often described as "caring" and were expected to create a positive home environment, whereas fathers were more commonly described as hardworking. This is in line with past findings that adolescents look to parents for influence over issues that are relevant to socially acceptable behaviors or their future although they are more influenced by peers in relation to "personal" issues, such as clothing style and how they spend their time (Meeus, 2019; Steinberg, 2001). Moreover, sociological research has found that mothers are often seen as caregivers and required to display related traits such as being caring, sensitive, and supportive, whereas fathers are more often seen as "breadwinners", expected to be hardworking, and not expected to take on emotional burdens at home (Schmidt, 2018).

6.4.3 Parent control

Another important finding from our research was that whereas adolescents limited parent knowledge about their activities at times, they mostly respected parental authority and

often justified rules or expectations that they disagreed with. Adolescents are thought to have less respect for rules that relate to issues they perceive as "personal" (Smetana, 2010, 2011); but, this study found that adolescents were likely to respect parent authority, even if they disagreed with rules, if they perceived their parent as supportive and caring and believed that their parent had their best interests at heart.

Our research also found that adolescents' views on parent authority were gendered. Fathers were more likely to be seen as "stubborn" and to set rules that were not perceived to be in the adolescent's best interests and sons were more likely than daughters to be resentful of rule setting. Again, these findings are consistent with past research showing that male adolescents are likely to be more resentful of rule-setting, and that mothers are more likely to display qualities such as caring and nurturing as compared to fathers (Weymouth et al., 2016; Schmidt, 2018).

6.4.4 Conflict is not the norm

Finally, a key finding of our research was that conflict was often absent from adolescent speech samples. Participants rarely commented on negative interactions with parents and any comments suggestive of negative interactions were often followed by justifying statements. Past research has proposed that whereas high intensity conflict is rare, disagreements are a common aspect of adolescent–parent relationships (Meeus, 2016; Smetana & Rote, 2019). Although the narrative samples collected for this study are relatively short, the openness of the question provides the opportunity to express any aspect of the parental relationship—particularly emotionally salient issues—and thus the relative lack of negative descriptions is notable. Furthermore, recent reviews have argued that it is important for research to explore the meaning of disagreements in adolescent–parent relationships and not just the frequency (Laursen & Collins, 2009; Steinberg, 2001). In our samples, it

appeared that disagreements were not frequently mentioned because they were often seen as "normal" and therefore not central to describing or defining the relationship.

In line with past research, fathers were seen to be more stubborn and to show less understanding of adolescents, which resulted in them having more serious conflicts with adolescents (Schmidt, 2015). Females were generally more empathetic towards parents and were less likely to describe serious conflict with them. This aligns with past findings that males are more assertive in conflict with parents whereas females try to appease others by suppressing their own thoughts and feelings which may help to explain why parent-son disagreements are more negative (Weymouth et al., 2016).

6.4.5 Implications, limitations, and future directions

These results have important implications for future research regarding adolescent–parent relationships. Research on adolescent-parent relationship has overwhelmingly focused on maladaptive relationship dynamics and links to adolescent outcomes (Rote & Smetana, 2019). Despite this, our research found that adolescents were overwhelmingly positive about their relationships with their parents. Adolescents valued parent emotional support, actively built closeness through shared interests, generally respected their authority and also saw parents as role models. In other words, the adolescents in our sample emphasized strengths in their relationship with their parents rather than conflict, tension, or disagreements. To have a nuanced understanding of adolescent-parent relationships, researchers should emphasize adolescent perspectives and explore the importance of closeness and parent influence in more depth.

Our results also have important implications for clinical practice. Adolescents report that they have more respect for parent authority and are more positive about parents when they feel understood by them and when they feel that parents have good rationale for rule setting. Feeling supported is linked to parents being able to problem solve and soothe

negative emotions as well as to parents being able to reduce shame and embarrassment around negative experiences. Clinical interventions with adolescents should therefore focus on helping them to express their needs for support and helping parents understand the meaning of negative interactions with adolescents. Attachment-based parent programs, such as Connect (Moretti et al., 2018), focus on helping parents understand the meaning of their teen's challenging behavior from an attachment perspective. Parents should also be helped to provide clear rationales for boundary-setting, as adolescents may be more receptive to these directives when they understand their parent's good intentions.

Despite making several important contributions, our study also had a number of limitations that need to be addressed. Speech samples used in this study were collected as part of a larger quantitative study so decisions about research settings, participant characteristics, and data collection were made with different research goals in mind than those of the current qualitative study (Sherif, 2016). Characteristics of the participants used in this study limited interpretation of the speech samples. For example, all adolescents in our sample came from regional high schools in Australia and were predominantly Caucasian and native English speaking limiting the generalisability of our results. In addition, the majority of adolescents (79%) discussed their mothers, limiting our discussion of the influence of parent gender. Moreover, longitudinal research has shown that conflict between adolescents and parents declines between middle to late adolescence (Meeus, 2016, 2018). Many of our sample were 17 and 18 and thus were no longer in the period of adolescence when they are expected to have frequent conflicts with parents. Future qualitative research should explore adolescent conceptualisations of parents using a more diverse sample.

There were also limitations to the methods we used when collecting data. Although adolescents were encouraged to speak uninterrupted, and their answers were unbiased by interviewers' questions, participants completed questionnaire measures that assessed

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adolescent-parent attachment and perceived parent affective attitudes before providing speech samples. It is possible that the questions asked by these self-report measures prompted adolescents to discuss certain themes that they would not have thought of otherwise. Even so, the FMSS format allowed adolescents more freedom to discuss topics that were important to them, as compared to traditional interview methods.

Additionally, we were unable to ask follow-up questions and to clarify key aspects of our data; for example, what makes a good adolescent–parent relationship. As such, we inferred which aspects of the adolescent–parent relationship were important based on the themes that were most frequently discussed. Further qualitative research is needed to explore adolescents' explicit beliefs about what makes a good adolescent–parent relationship. Previous research has explored this question in Mexican and Cuban American adolescents, but this research did not explicitly address conflict and was limited to a specific population (Crockett et al., 2007, 2009).

6.4.6 Conclusion

In conclusion, the results of this study provide important information about how adolescent–parent relationships are perceived by adolescents. Qualitative analysis of adolescents' speech samples showed that adolescents valued emotional support, companionship, and boundary setting from parents and also looked to them to role-model key traits such as being caring and hard-working. Narratives relating to negative interactions with parents were relatively rare and adolescents who described conflict often justified their parent's behaviors and made statements about these interactions as normal. Overall, this is suggestive that adolescent–parent relationships are overwhelmingly positive in nature, despite a strong focus on negative relationship dynamics in previous research. More qualitative research is needed to understand explicit beliefs about positive and difficult

aspects of adolescent–parent relationships using structured interviews with both adolescents

and their parents.

Chapter 7 - General Discussion

This thesis sought to answer three broad research questions:

1. *Are parents' and adolescents' differing perspectives on parenting and family functioning indicative of maladaptive or adaptive processes in the family environment?*

2. *Does an observational/interview assessment tool provide unique information about adolescents' perceptions of their relationships with their parents as compared to established self-report questionnaires?*

3. *What themes exist in adolescent narratives about parent relationships and how can this improve our understanding of individual processes that shape adolescent–parent interactions?*

In this final chapter, first, the main findings of this thesis are discussed in the context of these research questions. Second, maladaptive and adaptive family dynamics linked to adolescents' perceptions of parenting are explained in more depth and theoretical explorations are explored. Third, implications for researchers and clinicians are discussed, and finally, limitations and future directions are outlined.

7.1 Overview of Main Findings

7.1.1 Study 1: An IPD Meta-Analytic Review of the Relationship Between Adolescent–Parent Report Discordance and Developmental Outcomes

Addressing question 1, Study 1 presented a quantitative analysis of the relationship between adolescent–parent report discordance and adolescent outcomes using polynomial regression and RSA. This study found that a term representing the interaction of adolescent and parent reports of parenting (parent warmth, behavioural control, and psychological control) and relationship (relationship quality and family functioning) dimensions was not significantly related to adolescent outcomes using either the one-stage or two-stage IPD approach. Moderator analyses suggested that the strength of this relationship varied between groups. Specifically, the interaction of adolescent and parent reports was more strongly related to adolescent outcomes for positive versus negative parenting and relationship dimensions, for academic outcomes versus socioemotional or behavioural outcomes, for negative versus positive outcome dimensions, and when adolescents or parents had reported on adolescent outcomes as compared to when studies had used aggregated reports. Despite this, subgroup analysis of these moderator effects showed that the interaction of adolescent and parent reports was not significantly related to adolescent outcomes for any group. Other variables including parenting and relationship dimension (warmth, behavioural control, psychological control, and family functioning), outcome dimension (socioemotional, behavioural, and academic), age, adolescent and parent gender, and culture did not moderate the relationship of the interaction term to adolescent outcomes.

Study 1 is the first test of the well-regarded modified Operations Triad Model (De Los Reyes & Ohannessian, 2016) using robust meta-analytic techniques and polynomial regression with a large sample size. The results of this study are significant as, contrary to this popular model, they suggest that discrepancies between adolescent and parent reports of

parenting are not linked to maladaptive family dynamics. Instead, we may expect that differences between adolescents' and parents' reports of parenting and relationship dimensions are a natural and non-problematic result of their unique beliefs, expectations, and attitudes (Laursen & Collins, 2009). The implications of this finding for researchers and clinicians are explored below.

7.1.2 Study 2: Exploring the Usefulness of the FAARS Coding Scheme in an Adolescent Population

In line with question 2, Study 2 presented a quantitative analysis of the relative usefulness of the FAARS coding scheme compared to existing questionnaire measures of adolescents' perceptions of parenting. This research found that the FAARS NRS and PRS scales demonstrated strong internal consistency and inter-rater reliability in an adolescent population and converged with established questionnaire measures of attachment and relationship quality, antisocial outcomes, and prosocial behaviour. When included in the same model, FAARS NRS (but not the self-report questionnaires) was uniquely associated with externalising behaviour and prosocial behaviour, while the PRS (and not the self-report scales) was uniquely associated with CU traits. These results suggest that the FAARS is a useful and reliable method of assessing adolescent positive and negative affective attitudes, and that it provides unique information relative to existing self-report questionnaires. This finding is significant given the over-reliance on self-report questionnaires within the current literature. The FAARS is cost effective, requires minimal training compared to other interview/observational tools, and can feasibly be used in longitudinal and large cohort research. Thus, it has the potential to improve current understanding of adolescent–parent relationship quality by facilitating multi-method assessment in future research.

7.1.3 Study 3: Qualitative Analysis of Key Themes in Adolescent Narratives About Their Relationships With Their Parents

Finally, Study 3 was a qualitative analysis of the adolescent three-minute speech samples collected during Study 2, that explored how adolescents perceived parent behaviours during interactions with them, addressing question 3. This research found that adolescents valued closeness and emotional support from parents, generally respected their parent's authority and often looked to their parents to role-model valued traits such as being caring and hard-working. Surprisingly, given popular opinion on adolescents, mentions of conflict or disagreement were mostly absent from the speech samples, or were followed by justifying statements such as "it's normal" that suggested they were not seen as serious by adolescents. Overall, adolescents have a largely positive view of their parents and their relationships with them, and also continue to view them as important, despite their increased need for independence and for intimate relationships outside of the family.

Study 3 is the first qualitative analysis to examine relationship themes chosen by adolescents, as opposed to asking adolescents to reflect on themes chosen by a researcher (Crockett et al., 2007, 2009; Smetana, 2011). Thus, the most important contribution of this study is the finding that, when evaluating the quality of relationships with parents, adolescents see disagreements as "normal" and therefore relatively unimportant as compared to parent emotional support and being able to "get along" with them. While it is valuable for researchers to understand how key family dynamics are interrelated, adolescents' themselves see positive aspects of the relationship, including closeness, emotional support, parent guidance, and role-modelling, as the most influential aspects of their relationships with their parents.

7.2 Theoretical Implications

Taken together, these findings emphasise the importance of adolescents' perceptions and attitudes towards their parents. Improved knowledge of these perspectives will lead to a more nuanced understanding of the links between parent behaviours and adolescent outcomes. As explored in chapter 2, past research on adolescent–parent relationships has often used adolescent–parent self-reports of parent behaviours. Yet, as indicated by results from the current thesis, the impact of parent behaviours on adolescents is shaped by adolescents' attitudes, beliefs, and expectations towards parents, and the underlying affective quality of their relationship with each other, which cannot be fully understood using self-report measures. The findings of this thesis speak to the importance of exploring differences between adolescents' and parents' perspectives of their relationship and in using multi-method assessment approaches.

Meta-analytic reviews have established that low levels of concordance between parents' and adolescents' reports of parenting is the norm (Hou et al., 2019; Korelitz & Garber, 2016). Researchers have theorised that this discordance could reflect both adaptive and maladaptive family dynamics and be linked to adolescent outcomes. Despite this, Study 1 found that adolescent–parent discordance in reports of parenting was not linked to adolescent wellbeing. For this reason, adolescent–parent disagreements regarding parenting behaviours and general family functioning are more likely to reflect differences between their attitudes, beliefs, and expectations of their relationship than maladaptive family dynamics. A recent review commented that "self-report assessments are important for precisely the reason they are often shunned by researchers, namely because they are biased by participant perceptions, expectations, and cognitions" (Laursen & Collins, 2009, p.16). Thus, future researchers should examine the cognitions and affective attitudes that bias adolescents' and parents' reports of their relationship.

For instance, as adolescents' grow older they may conceal more information about their activities from parents, because they see these decisions as "personal" (Smetana, 2010). This may lead to decreased disclosures and communication between adolescents and parents, which is linked to increased adolescent–parent report discordance regarding relationship quality (Keijsers et al., 2009). Yet, parents and adolescents also believe that it is important for adolescents to have privacy around "personal" issues as it is seen by both as an important part of developing independence (Smetana, 2011). Beliefs such as this could be protective against long term damage to the relationship. Thus, although adolescents' increased privacy detrimentally impacts parents' perceptions of the relationship, this impact may be relatively minimal in the long term given adolescents' and parent's beliefs about the importance of adolescent autonomy. Overall, adolescents and parents are likely to disagree about many aspects of their relationship, partly due to their different roles and needs in the relationship. Current knowledge of adolescent–parent relationship dynamics would be helped by examining the attitudes, beliefs, and expectations that frame their perspectives of each other, rather than continuing to problematise discordance.

Furthermore, the results of this thesis underline the importance of examining adolescent perspectives on their relationships with their parents using a wide variety of assessment tools. It is widely accepted that multi-method assessments lead to more robust observations, but there are limited assessment tools available to examine adolescent perspectives on family dynamics that are not self-report questionnaires (Alderfer et al., 2008). Study 2 demonstrated that an observational coding system, which could be coded in a short amount of time and required relatively little training as compared to existing observational and interview methods, provided unique information on affective attitudes and was related to adolescent outcomes over and above questionnaire measures. The usefulness of this tool provides evidence that researchers should develop more observational and interview

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assessment tools that can feasibly be used in large cohort research or in clinic settings. Such tools can significantly improve knowledge of the links between adolescent–parent relationships and adolescent outcomes.

In addition to coding adolescent narratives using the FAARS scales, this thesis qualitatively analysed adolescent narratives to extract rich information about adolescent perspectives on their relationships with parents. While it is important to examine levels of closeness, tension, and control in adolescent–parent relationships, researchers also need to explore the underlying processes linked to these trends including the attitudes, beliefs and expectations that family members bring to their interactions with each other. Results from Study 3 suggest that, although adolescents may report decreased closeness and increased disagreements with parents on self-report questionnaires, their perspectives on their parents are mostly positive. Adolescents value "getting along" with parents and feeling understood by them and are understanding of their right to set boundaries even if they do not agree with their rules, as long as parents are perceived to have their best interests at heart. These findings demonstrate the importance of exploring cognitions and affective attitudes linked to adolescents' positive and negative interactions with parents, and not just the frequency of these interactions.

In sum, although each study addressed a unique question on adolescent perceptions of parenting and family, on a broad level they each demonstrate the fundamental importance of examining adolescent perceptions of parent behaviours and adolescent affective attitudes using multi-method approaches. Adolescent–parent relationships are dyadic, meaning that both members of the dyad uniquely influence the meaning and quality of their interactions. It is important that research explores how parent behaviours are perceived by adolescents and not just the level at which they exist when seeking to understand how adolescent outcomes are linked to the family environment.

7.3 Clinical Implications

The results of this thesis also have a number of clinical implications. Family assessments and adolescent therapeutic interventions often involve collecting reports from all family members and there are generally low to moderate levels of agreement between these reports (Hou et al., 2019; Korelitz & Garber, 2009). Based on the results of Study 1, low adolescent–parent report concordance may not be linked to maladaptive family dynamics but potentially to adolescents' and parents' unique attitudes, beliefs, and expectations of their relationship. Accordingly, adolescents and parents are likely to disagree on the extent to which parenting behaviours and broader family dynamics exist. When creating goals for family interventions, it is important that clinicians understand how interactions are experienced by all family members,

Additionally, the results of Study 2 and Study 3 suggest that clinicians should assist parents to understand the meaning of adolescent behaviours. In Study 2, externalising problems, prosocial behaviours, and CU traits were related to adolescent NRS while CU traits were related to adolescent PRS, suggesting that adolescents' may be more likely to engage in antisocial behaviours when they see their relationship with their parent as highly critical. This aligns with the results of Study 3, which showed that adolescents respect parents' values and expectations for behaviour, but only in the context of otherwise supportive relationships. Relationship-based parenting interventions, such as Connect (Moretti, Pasalich & O'Donnell, 2018), help parents sensitively respond to 'difficult' behaviours in a collaborative and supportive manner, by being curious and validating adolescents' underlying emotional needs, rather than reacting to their behaviour and focusing on discipline. The results of Study 2 and Study 3 support the usefulness of these types of intervention strategies for parents and adolescents who report negative quality relationships with each other and suggest that clinicians should consider these techniques more consistently with parents of adolescents

who may be experiencing externalising problems in the context of critical relationships with parents.

Overall, these results have important implications for clinicians as they demonstrate that adolescents' underlying attitudes towards parents, and not just self-reports of parent behaviours, are strongly linked to adolescent psychosocial outcomes. For this reason, it is important that clinicians thoroughly assess the quality of adolescent–parent relationships from adolescents' perspectives when creating goals for treatment. Moreover, parents should be included in the therapeutic process, as helping them to understand how parenting behaviours are perceived by adolescents may improve the quality of adolescent–parent interactions, and so may lead to improved adolescent outcomes.

7.4 Limitations and Future Directions

Despite making a number of important contributions, there are several significant limitations to this research which need to be discussed. First, it is important to acknowledge that all three studies included samples with low ethnic diversity, which limits the generalisability of these results. In Study 1, all secondary datasets were from the US or from European countries, while in Studies 2 and 3 all participants were Australian adolescents and were predominantly born in an English-speaking country. Sociological research has found that the meaning and importance of certain parenting behaviours can change between cultures (Bush & Peterson, 2013; Smetana & Rote, 2019). For example, individualistic cultures emphasize the importance of individuals establishing unique beliefs, values, and identity, whereas in collectivistic cultures it is important for families to have shared values and beliefs. As such, when family members have different perceptions of the family environment, this is more likely to be linked with maladaptive family dynamics in collectivistic countries than in individualistic countries (Bush & Peterson, 2013). Likewise, early ethnographic research suggests that conflict between parents and adolescents may be more distressing in small

collectivistic communities as individuals are more highly dependent on family in these communities (Smetana & Rote, 2019).

Given these findings, future research should examine whether the findings reported in this thesis differ based on ethnic and cultural factors. In particular, research should focus on exploring a) what parent adolescent report discrepancies reveal about adaptive family dynamics in different cultures, b) whether links between adolescent affective attitudes and developmental outcomes differ across cultures, and c) how adolescent views on parenting behaviours differ between cultures. This will provide a better understanding of how sociocultural context impacts the meaning of adolescent–parent interactions.

Second, neither of the datasets used for this thesis included data on family structure and so, none of the studies conducted were able to explore the importance of family environment. This was a limitation of the current research, as adolescents who live with two biological parents report better relationship quality and wellbeing as compared to adolescents who live in step-families, single parent families, or not with biological parents (King et al., 2018). Adolescents who live with two biological parents also report better wellbeing (Vanassche et al., 2013). A number of family processes have been theorised to explain these findings including reduced exposure to parental conflict, reduced parent substance use, and higher sense of family belonging in families with two biological parents (Bush & Peterson, 2013). Given these findings, the relationship of adolescent–parent report discordance and adolescent affective attitudes to adolescent outcomes may be moderated by family structure. Further research should explore whether the relationships examined in Study 1 and Study 2 vary based on family environment.

Likewise, adolescents' perspectives on relationships with step-parents or other carers (such as adopted, foster, or kinship) may differ from their perspective on biological parents. Adolescents in our sample were mostly positive about their relationships with parents,

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suggesting that they generally valued closeness with them and respected their authority. In other family contexts, where adolescents are likely to have experienced greater disruptions to caregiver relationships, adolescents may also be more likely to be resentful or wary of caregivers and to experience less positive relationships with them (Moretti & Peled, 2004). It is important that future research explore how adolescent perspectives on parents vary across family structures.

Third, Study 1 and Study 2 used cross-sectional as opposed to longitudinal designs. Thus, findings presented in this thesis do not address how adolescent affective attitudes and adolescent–parent report discordance are linked to adolescent wellbeing over time, nor bidirectional relationships between these variables. This is a limitation, as research outlined in chapter 3 has shown that adolescents' internalising and externalising problems predict parents' and adolescents' self-reports of parent critical and warm behaviours more frequently than the reverse (Hale III et al., 2016; Nelemans et al., 2020). Further research should examine whether adolescent and parent reports discordance and adolescent affective attitudes are linked to adolescent outcomes over time as well as any bidirectional relationships between them.

For instance, one study found that adolescent–parent discordance regarding parent monitoring at age 12 (with parents generally over-reporting their knowledge of adolescent activities) predicted adolescent delinquency at age 15 (Ksinan & Vazsonyi, 2016). In addition, age 11 closeness predicted age 12 monitoring discrepancy (Ksinan & Vazsonyi, 2016). Thus, poor quality relationships may lead to reduced disclosures from adolescents about their activities, causing them to report that parents have poor knowledge about their activities. Yet externalising behaviours such as delinquency have also been shown to predict declines in adolescent–parent relationship quality (Hale III et al., 2016; Nelemans et al., 2020). It is therefore likely that there will be a reciprocal relationship between adolescent

delinquency and adolescent–parent discordance, whereby adolescents who engage in more rule-breaking or aggressive behaviours are likely to experience more conflict and tension with parents, leading to worse relationship quality, fewer adolescent disclosures and subsequent increases in adolescent–parent discordance. Establishing a better understanding of the directions of these relationships will help researchers to better understand how adolescents influence and are influenced by the family environment.

7.5 Conclusion

Adolescents and parents have unique expectations, attitudes, and beliefs that influence their behaviours towards each other as well as their perceptions of their relationship. Despite this, research has often used adolescent and parent self-reports and has not properly explored adolescent perspectives using a range of methods. This thesis argued that it is important for research to establish a more in-depth understanding of adolescents' attitudes towards parents. To this end, Study 1 examined the potential significance of adolescent–parent discordance in reports of parenting and family. Study 2 used quantitative methods to explore the usefulness of coding adolescent narratives regarding relationships with parents using the FAARS. Study 3 analysed these narratives using qualitative methods to better understand adolescents' perceptions of their relationships with their parents. In sum, adolescents' attitudes and beliefs towards parents help to explain how parenting behaviours and adolescent–parent relationship quality are linked to adolescent outcomes. It is vital that researchers assess the meaning of family dynamics, and not just the level at which they occur, when exploring the importance of adolescent–parent relationships.

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List of Appendices

Appendix A: Study 1

Table A1

Structure of datasets before merging

Study ID	Age	Child Gender	Parent Gender	Parenting Outcome	Parent Report	Adolescent Report	Adolescent Outcome	Parent Report	Adolescent Report
4	14	0	0	Relationship quality	0.45	0.11	Mood	0.73	1.43
4	14	0	0	Relationship quality	0.45	0.11	Rule breaking	-1.54	-1.10
4	14	0	0	Relationship quality	0.45	0.11	GPA	1.56	1.45
4	14	0	0	Psychological control	-1.92	-2.10	Mood	0.73	1.43
4	14	0	0	Psychological control	-1.92	-2.10	Rule breaking	-1.54	-1.10
4	14	0	0	Psychological control	-1.92	-2.10	GPA	1.56	1.45
4	14	0	0	Monitoring	1.23	0.95	Mood	0.73	1.43
4	14	0	0	Monitoring	1.23	0.95	Rule breaking	-1.54	-1.10
4	14	0	0	Monitoring	1.23	0.95	GPA	1.56	1.45
4	14	0	1	Relationship quality	0.75	0.11	Mood	0.95	1.43
4	14	0	1	Relationship quality	0.75	0.11	Rule breaking	-1.15	-1.10
4	14	0	1	Relationship quality	0.75	0.11	GPA	1.75	1.45
4	14	0	1	Psychological control	-1.35	-2.10	Mood	0.95	1.43
4	14	0	1	Psychological control	-1.35	-2.10	Rule breaking	-1.15	-1.10
4	14	0	1	Psychological control	-1.35	-2.10	GPA	1.75	1.45
4	14	0	1	Monitoring	1.62	0.95	Mood	0.95	1.43
4	14	0	1	Monitoring	1.62	0.95	Rule breaking	-1.15	-1.10
4	14	0	1	Monitoring	1.62	0.95	GPA	1.75	1.45

Table A2

Summary of study characteristics of studies included in meta-analysis

Reference	N (Adol.)	% Females	Mean Age	N (Par.)	% Mothers	Country	Parenting Dimension	Outcome Dimension	Measure
Child Development Project (Dodge et al., 1990)	585	48.00%	16.00	585	100.00%	US	RQ	SEB	**PD:** Concerns and Constraints Questionnaire (Pettit, Bates & Dodge, 1997) **OD:** Youth Self Report (Achenbach, 1997)
Divorce in Flanders (DiF) project (Sodermans et al., 2013)	954	50.70%	15.70	1428	65.00%	Belgium	W	SEB	**PD & OD:** Scales were created by author.
The Fast Track Project (Conduct Problems Prevention Research Group, 1992)	754	58.00%	15.47	754	NA	US	BC W	B	**PD**: The Zurich Short Questionnaire on Parental Behavior (ZKE; Reitzle et al., 2001) **OD:** DASS-21 (Lovibond & Lovibond, 1995)
Gambin et al. (2015)	328	64.00%	15.40	328	78.40%	US	BC W	SEB	**PD**: Alabama Parenting Questionnaire (APQ-P and APQ-C; Frick 1991; Shelton, Frick, and Wootton 1996) **OD:** Child Behavior Checklist (Achenbach & Rescorla, 2001); Youth Self Report (Achenbach, 1997)

Givertz & Segrin (2014)	228	61.70%	19.02	228	81.40%	US	BC W FF	SE	**PD:** Family Adaptibility and Cohesion Evaluation Scales, Version IV (Olson, Gorall & Tiesel, 2006); Psychological Control Scale- Youth Self-Report (Barber, 1996); Parental Authority Questionnaire (Buri, 1991) **OD:** Self-Efficacy Scale (Sherrer et al., 1982)
Graham & Weems (2015)	157	47.80%	13.6	157	NA	US	BC	SE	**PD:** Alabama Parenting Questionnaire (APQ-P and APQ-C; Frick 1991; Shelton, Frick, and Wootton 1996). **OD:** Revised Children's Anxiety and Depression Scale (Chorpita, Yim, Mofitt, Umemoto & Francis, 2000)
Hou et al. (2018)	604	54.00%	12.41	888	67.00%	US	BC W	SE	**PD:** Iowa Youth and Families Project (Conger et al., 1995; Kim et al., 2013) **OD:** Youth Self-Report (Achenbach & Rescorla, 2001); Center for Epidemiologic Studies of Depression Scale (Radloff, 1977); Connor-Davidson Resilience Scale (Connor & Davidson, 2003)
Kiesner et al. (2009)	284	45.00%	14	284	NA	Canada/ Italy	BC	B	**PD:** Parent Monitoring and Child Disclosure (Kerr & Stattin, 2000; Stattin & Kerr, 2000) **OD:** Youth Antisocial Behaviour Scale (Metzler, Biglan, Ary, & Li, 1998); Problem Checklist (Dishion & Kavanagh, 2003)

Kiesner et al. (2010)	284	51.00%	14.25	284	NA	Canada/ Italy	PC	B	**PD**: Parent Monitoring and Child Disclosure (Kerr & Stattin, 2000; Stattin & Kerr, 2000) **OD:** Scales were created by author.
Kim et al. (2013)	444	53.60%	13.61	767	51.00%	US	BC PC W	SE B A	**PD:** Iowa Youth and Families Project (Conger, Patterson & Ge, 1995; Ge, Best, Conger & Simons, 1996); Parenting Practices Questionnaire (Robinson, Mandleco, Olson, & Hart, 1995); Children's Report of Parenting Behavior Inventory (Schaefer, 1965); questions created by author **OD:** Center for Epidemiologic Studies- Depression Scale (Radloff, 1977)
Lengua & Kovacs (2005)	114	55.00%	NA	114	100.00%	US	BC W	SE B	**PD:** Child Report of Parenting Behavior Inventory (Schaefer, 1965); Alabama Parenting Questionnaire (APQ-P and APQ-C; Frick 1991; Shelton, Frick, and Wootton 1996). **OD:** Child Behavior Checklist (Achenbach & Rescorla, 2001); Youth Self Report (Achenbach, 1997); Children's Depression Inventory (Kovacs, 1981)
Lengua (2006)	98	56.12%	10.48	98	100.00%	US	BC W	SE B	**PD:** Interpersonal Conflict Questionnaire (Laursen, 1993) **OD:** Interpersonal Reactivity Index (Davis, 1983)

Loehlin et al. (2005)	216	46.30%	12.44	432	50.00%	US	RQ	SE B	**PD:** Observor ratings of parent-child interactions; **OD:** Behavior Problem Index (Zill, 1985); Child Depression Index (Kovacs, 1985); Behaviour Events Inventory, Global Coding Scales (Hetherington & Clingempeel, 1992)
Maes et al., (2016)	660	49.20%	15.78	700	53.86%	Belgium	BC PC	SE	**PD:** Psychological Control Scale—Youth Self-Report (PRS—YSR; Barber1996); Child Report of Parenting Behavior Inventory (Schaefer, 1965)- Dutch version (Delhaye et al.2012) **OD:** Loneliness and Aloneness Scale for Children and Adolescents (Marcoen et al., 1987); Self-Perception Profile for Adolescents (Harter, 1988)
Maryland Adolescent Development in Context (MADIC)	1482	51.00%	12.28	1482	92.00%	US	BC	A	**PD & OD:** Scales were created by researchers.
McDevitt & Kiousis, (2015)	740	57.00%	NA	740	NA	US	RQ	A	**PD & OD:** Questionnaires created by researchers.
Nelemans et al. (2014)	497	43.00%	14.03	497	100.00%	The Netherlands	W	SE	**PD:** Level of Expressed Emotions Scale (LEE, Gerlsma & Hale, 1997; Hale et al., 2007) **OD:** Reynolds Adolescent Depression Scale (RADS-2; Reynolds, 2000); Screen for Child Anxiety Related Emotional Disorders (Birmaher et al., 1997; Hale et al., 2005)

Nelemans et al. (2016)	497	43.00%	13.03	953	52.15%	The Netherlands	RQ	SE	**PD:** Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985) **OD:** Reynolds Adolescent Depression Scale (RADS-2; Reynolds, 2000)
Philadelphia Management Study (Furstenberg Jr., 1999)	489	55.00%	13.5	489	90.00%	US	RQ	SE B	**PD & OD:** Scales were created by researchers.
Rote & Smetana (2016)	174	47.70%	15.69	174	100.00%	US	BC PC W	SE B A	**PD:** Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985); Pscyhological Control Scale-Youth Self Report (PCS-YSR; Barber, 1996); Questionnaire created by author **OD:** Center for Disease Control-Depression Scale (Radloff, 1977); Questionnaire created by author
Rueth et al. (2017)	923	47.50%	12.64	923	74.60%	Germany	BC PC	SE B	**PD:** German Parental Behavior Scale (Wild, 1999) **OD:** Strengths and Difficulties Questionnaire- German version (Goodman, 1997)
Schwartz et al. (2016)	303	53.50%	14.50	303	NA	US	BC W FF	SE	**PD:** Family Relations Scale (Tolan, Gorman-Smith, Huesmann & Zelli, 1997); Parent Adolescent Communication Scale (Barnes & Olson, 1985); Parenting Practices Scale (Gorman-Smith, Tolan, Zelli & Huesmann, 1996) **OD:** Erikson Psychosocial Stage Inventory (Rosenthal et al., 1981) Youth Self Report (Achenbach, Dumenci & Rescorla, 2002)

Silva & Stattin (2016)	900	56.50%	15.55	900	86.70%	Sweden	BC W RQ	B	**PD & OD:** Scales were created by researcher.
Tschan et al. (2015)	116	100.00%	16.01	116	79.30%	Germany	W	SE	**PD:** The Zurich Short Questionnaire on Parental Behavior (ZKE; Reitzle et al., 2001) **OD:** Depression, Anxiety and Stress Scale 21(Lovibond & Lovibond, 1995)
Van Lissa et al. (2015)	497	57.00%	13.03	904	51.66%	The Netherlands	RQ	SE	**PD:** Child Report of Parenting Behaviour inventory (Schaefer, 1965); Psychological Control Scale (Barber, 1996) **OD:** Loneliness and Aloneness Scale for Children and Adolescence (Marcoen et al., 1987)
Wilson et al. (2011)	72	52.80%	13.20	72	86.10%	UK	W	SE	**PD:** EMBU for children (Sweedish acronym for "My memories of upbringing"; Castro, Toro, Van der Ende & Arrindell, 1993); EMBU for parents (Castro, de Pablo, Gomez, Arrindell & Toro, 1997) **OD:** Depression, Anxiety and Stress Scale 21(Lovibond & Lovibond, 1995)

Note. US = The United States of America; RQ = relationship quality; BC = behavioural control; PC = psychological control; FF = family functioning; PD = parenting dimension; OD = outcome dimension.

Appendix B: Study 2

Table B1

Descriptive statistics of items belonging to FAARS Scales

	M	SD
NRS	1.87	0.93
1. Critical regarding behaviour of target person	1.62	1.16
2. Critical of traits or personality of target person	1.51	1.17
3. Negative relationship with target person including signs of anger, resentment or contempt	2.50	1.55
4. Assumes or attributes negative intentions of the target person	1.51	1.51
5. Reports of conflict with/anger or hostility towards target person	2.24	2.24
PRS	4.24	1.61
1. Generally positive regarding behaviour of target person	3.49	1.95
2. Generally positive regarding traits or personality of target person	6.47	2.46
3. Reports positive relationship with target person	5.88	2.81
4. Assumes or attributes positive intentions of the target person	3.54	2.28
5. Reports of engaging in shared activities with the target person	3.25	2.32
6. Statements of love/caring toward target person	2.82	1.83

Table B2

Factor loadings of items on the FAARS scales

Items	Factor loadings
Negative Relational Schema	
1. Critical regarding behaviour of target person	.43
2. Critical of traits or personality of target person	.64
3. Negative relationship with target person including signs of anger, resentment or contempt	.90
4. Assumes or attributes negative intentions of the target person	.65
5. Reports of conflict with/anger or hostility towards target person	.86
Positive Relational Schema	
1. Generally positive regarding behaviour of target person	.70
2. Generally positive regarding traits or personality of target person	.67
3. Reports positive relationship with target person	.84
4. Assumes or attributes positive intentions of the target person	.64
5. Reports of engaging in shared activities with the target person	.71
6. Statements of love/caring toward target person	.65