

2018

## Interpersonal Problems and Experiential Avoidance in Mental Health Carers

Elly Quinlan  
*University of Wollongong*

Follow this and additional works at: <https://ro.uow.edu.au/theses1>

**University of Wollongong**

**Copyright Warning**

You may print or download ONE copy of this document for the purpose of your own research or study. The University does not authorise you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following: This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part of this work may be reproduced by any process, nor may any other exclusive right be exercised, without the permission of the author. Copyright owners are entitled to take legal action against persons who infringe their copyright. A reproduction of material that is protected by copyright may be a copyright infringement. A court may impose penalties and award damages in relation to offences and infringements relating to copyright material.

Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

Unless otherwise indicated, the views expressed in this thesis are those of the author and do not necessarily represent the views of the University of Wollongong.

---

### Recommended Citation

Quinlan, Elly, Interpersonal Problems and Experiential Avoidance in Mental Health Carers, Doctor of Philosophy thesis, School of Psychology, University of Wollongong, 2018. <https://ro.uow.edu.au/theses1/358>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: [research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA

# **Interpersonal Problems and Experiential Avoidance in Mental Health Carers**

*A thesis submitted in fulfillment of the requirements of the degree:*

DOCTOR OF PHILOSOPHY

From the University of Wollongong

*by*

Elly Quinlan (nee Bailey)

B Science (Psychology), PGDipPsych, GradDipProfPsych

School of Psychology

2018

This research has been conducted with the support of the Australian Government  
Research Training Program Scholarship.

## **CERTIFICATION**

I, Elly Quinlan, declare that this thesis, submitted in fulfilment of the requirements for the degree Doctor of Philosophy, in the School of Psychology, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

*Elly Quinlan (nee Bailey)*

*February 2018*

## ACKNOWLEDGMENTS

My PhD journey started with Trevor Crowe, who first sparked my ambition and gave me the encouragement to start this process. Trevor's influence on me has been profound and it is not an overstatement to say he shaped the person I have become. Thankyou Trevor for your guidance, support, and all the opportunities you have provided me.

As is life, where I started was not where I ended up. After Trevor moved on from UOW, Frank Deane very graciously took over my supervision (2017). For someone who grimly warned me of 'how busy he is' at our first meeting, you have done an amazing job of always making time for me. I have appreciated your practical advice, steadiness and willingness to adapt to my 'on the fly' questions. I had thought finishing my PhD would be full of ecstatic emotions, though an unexpected sadness is the thought of ending our supervisory relationship so soon. I hope we have opportunities to continue to work together- I still have so much to learn from you.

Peter Caputi has been a steady constant during all stages of my PhD; I have appreciated your secondary supervision and support. A special mention goes to Mark Donovan, Brin Grenyer and Vida Bliokas. Although not directly involved in my PhD, you have served as important role models and fostered my growth as an academic. Without the opportunities and challenges you provided, I would not have had the motivation to finish this PhD so quickly!

There have also been many important people outside of the University bubble, such as my friends and family who tolerating not seeing me during 2017- 2018 ("*I'm writing!*").

My husband Gareth Quinlan has been most patient. Gareth, thank you for taking one for the team and letting me pursue a PhD first. Thank you for giving me space to be the 'ambitious one'. Thank you for your constant encouragement, support and kind words.

Thank you for your love. Now, it's your turn!

## ABSTRACT

Mental health carers frequently report interpersonal difficulties in relation to the person for whom they are caring, however, there is limited research specific to their relational experiences. This thesis involves a series of studies which investigate the nature of mental health carers' interpersonal problems, the role of other psychological processes in interpersonal distress, and interventions to improve interpersonal functioning in carers.

Study 1 is a qualitative exploration of interpersonal problems between mental health carers and the person for whom they provide care. Semi-structured interviews based on biographical narrative and Core Conflictual Relationship Theme methodology were conducted with 28 mental health carers. Thematic analysis identified emotion management, aggression, avoidance, responsibility, control, communication and role challenges as common interpersonal experiences.

The first study provided the impetus for a closer examination of mental health carers' interpersonal problems using existing frameworks. Study 2 is a cross-sectional survey that explores the interpersonal problems of 147 mental health carers. Measures include the Inventory of Interpersonal Problems 32 and demographic data. Findings indicate higher overall interpersonal problems for mental health carers as compared to a community sample, with 17.7% experiencing interpersonal problems of significant difficulty. Those caring for a shorter term (up to 10 years) had higher scores on the overly accommodating interpersonal problem domain while those caring for a longer term scored higher on the vindictive/self-centred domain.

The first two studies established the prevalence and characteristics of interpersonal problems in mental health carers. Study 3 aims to clarify some of the cognitive processes associated with the experience of interpersonal problems. Study 3 examines the relationship

between eight interpersonal problem domains and experiential avoidance, and tests the mediating role of attachment anxiety and hostility. A cross-sectional survey design was utilized with 145 mental health carers participating. Results indicated the relationship between experiential avoidance and interpersonal problems was fully mediated by attachment anxiety and hostility for the cold/distant and socially inhibited domains. Partial mediation was evident for the vindictive/self-centered, non-assertive, overly accommodating, self-sacrificing and intrusive/needy domains. No mediation occurred for the domineering/controlling domain.

In identifying the prevalence of interpersonal problems in mental health carers and associated psychological processes, the first three studies highlight the importance of supporting carers in their interpersonal functioning. Study 4 is a pilot of an Acceptance and Commitment Therapy and Schema group intervention for mental health carers' interpersonal problems. The study aims to determine acceptability of the intervention to a mental health carer population and conduct preliminary testing of effectiveness. A mixed-methods design was used, with assessment booklets administered at weeks 1, 6 and 12 of the program and focus groups conducted three months post-program. Twenty four mental health carers engaged in the intervention across five groups. Quantitative findings revealed high attendance rates and positive perceptions of the intervention. Over the course of treatment there were significant improvements in interpersonal problems, experiential avoidance, caregiving avoidance, mindfulness and wellbeing. Qualitative findings supported the acceptability of the intervention and highlighted the themes of group process, reactivity, changes in emotion, acceptance of caregiving, communication, agency and connection.

Taken together, findings from these four studies highlight the difficult relationships experienced by mental health carers that require targeted and effective psychological

treatment. Preliminary research suggests that mental health carers experience a myriad of interpersonal problems, at a higher rate than a community sample, and that these interpersonal problems have associations with experiential avoidance, attachment anxiety and hostility. ACT and Schema group programs may represent a promising intervention for this group. However, further research of greater methodological vigor is required.

## GLOSSARY OF KEY TERMS

**ACCEPTANCE AND COMMITMENT THERAPY:** a behavior therapy intervention that utilizes acceptance and mindfulness techniques, alongside behavior change processes, to promote psychological flexibility (Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

**ATTACHMENT ANXIETY:** refers to tension, discomfort and awkwardness in close relationships (Snell, 1998).

**CAREGIVING:** for the purposes of this thesis, refers to ongoing interactions with a person experiencing mental illness for the purposes of support. Such interactions may be practical in nature such as financial assistance, or emotional in nature such as listening.

**CARE RECEIVER:** describes the person who is receiving support due to their experience of mental illness.

**EXPERIENTIAL AVOIDANCE:** attempts to avoid internal sensations such as thoughts, feelings, memories and physical sensations even when doing so creates harm in the long-run (Hayes, Strosahl, & Wilson, 1999).

**HOSTILITY:** refers to the cognitive components of anger (Buss & Perry, 1992).

**INTERPERSONAL PROBLEMS:** recurrent difficulties encountered when interacting, or attempting to interact, with others (Horowitz, Rosenberg, & Bartholomew, 1993).

**INTERPERSONAL PROBLEMS CIRCUMPLEX:** refers to a model for conceptualizing, organizing, and assessing interpersonal problems.

**MENTAL HEALTH CARER:** refers to any individual who provides ongoing personal care, support and assistance to another individual experiencing mental illness. This includes family



members (such as parents, siblings and adult children), spouses and friends. For the purposes of this thesis, we focus on lay carers with paid professionals not included in our definition.

**MENTAL ILLNESS:** a condition which causes serious disorder in a person's behavior or thinking. Such conditions may include depression, bipolar, anxiety, schizophrenia, etc. For the purposes of this thesis, this incorporates both a formal and informal diagnosis.

**SCHEMA:** cognitive frameworks regarding self and others that contribute to rigid patterns of behavior (Beckley, 2011; Douglas, Binder, Kajos, Hyde, & Li, 2013; Thimm, 2013).

# TABLE OF CONTENTS

## Contents

CERTIFICATION .....	i
ACKNOWLEDGMENTS .....	ii
ABSTRACT.....	iii
GLOSSARY OF KEY TERMS.....	vi
TABLE OF CONTENTS.....	viii
LIST OF TABLES.....	xiii
CHAPTER ONE: OVERVIEW.....	1
1.1 The caregiving context.....	2
1.2 Mental health caregiving.....	3
1.3 Carer relationships.....	6
1.4 Interpersonal theory.....	9
CHAPTER TWO: STUDY ONE- Interpersonal Problems amongst Mental Health Carers ..	13
2.1 Outline and aims.....	14
2.2 Method .....	14
2.2.1 Participants.....	14
2.2.2 Data collection .....	14
2.2.3 Analysis.....	15
2.3 Results .....	16
2.3.1 Demographics .....	16
2.3.2 Thematic analysis.....	17
2.4 Discussion .....	28

## CHAPTER THREE: STUDY TWO- Profiles of Interpersonal Problems in Mental Health

Carers .....	33
3.1    Outline and aims.....	34
3.2    Method .....	35
3.2.1    Design and recruitment .....	35
3.2.2    Measures .....	36
3.2.3    Analysis.....	36
3.3    Results .....	38
3.3.1    Demographic characteristics of sample .....	38
3.3.2    The interpersonal profile of mental health carers .....	39
3.3.3    Interpersonal problems as a function of length of caring .....	41
3.3.4    Interpersonal problems as a function of relationship type .....	43
3.4    Discussion .....	43

## CHAPTER FOUR: THE ROLE OF EXPERIENTIAL AVOIDANCE, ATTACHMENT

ANXIETY AND HOSTILITY .....	48
4.1    Introduction .....	49
4.2    Experiential avoidance .....	49
4.3    Experiential avoidance and interpersonal problems.....	51

## CHAPTER FIVE: STUDY THREE- Do attachment anxiety and hostility mediate the relationship between experiential avoidance and interpersonal problems in mental health carers? .....

5.1    Outline and aims.....	55
5.2    Method .....	55
5.2.1    Design and recruitment .....	55
5.2.2    Measures .....	55

5.2.3	Analysis.....	57
5.3	Results .....	58
5.3.1	Demographic characteristics of sample .....	58
5.3.2	Descriptive statistics and Pearson correlations.....	59
5.3.3	Mediation models .....	61
5.3.4	Alternative (reverse) models .....	66
5.4	Discussion .....	67
5.4.1	Limitations .....	73
CHAPTER SIX: SUPPORTING MENTAL HEALTH CARERS.....		74
6.1	Introduction .....	75
6.2	Therapeutic interventions for caregivers.....	75
6.3	Relational interventions for carers .....	78
6.3.1	Interventions for experiential avoidance.....	78
6.3.2	Interventions for negative expectations of relationships .....	81
6.4	A new approach: ACT and Schema .....	84
CHAPTER SEVEN: STUDY FOUR- Pilot of an Acceptance and Commitment Therapy and Schema group intervention for Mental Health Carers' Interpersonal Problems.....		86
7.1	Outline and aims.....	87
7.2	Method .....	87
7.2.1	Study design.....	87
7.2.2	Pilot testing and participants .....	87
7.2.3	Intervention .....	88
7.2.4	Measures .....	90
7.2.5	Data analysis .....	92
7.3	Results .....	93

7.3.1	Acceptability .....	96
7.3.2	Preliminary testing of effectiveness .....	97
7.3.3	Qualitative results .....	100
7.4	Discussion .....	105
CHAPTER EIGHT: CONCLUSIONS .....		110
8.1	Overall summary and future directions .....	111
8.2	Integration of findings .....	112
8.3	Limitations and future directions .....	115
REFERENCES .....		116
APPENDICES .....		149
Appendix A: Article based on Study 1 .....		150
Appendix B: Ethics approval for Studies One and Four .....		166
Appendix C: Interview Protocol for Study One .....		167
Appendix D: Participant Information Sheet and Consent Form for Study One .....		169
Appendix E: Article based on Study 2 .....		172
Appendix F: Ethics approval for Studies Two and Three .....		185
Appendix G: Email for Data Recruitment Studies Two and Three .....		187
Appendix H: Recruitment Flyer for Studies Two and Three .....		188
Appendix I: Informed Consent for Studies Two and Three .....		189
Appendix J: Code Generator for Studies Two and Three .....		190
Appendix K: Inventory of Interpersonal Problems Permissions .....		191
Appendix L: Demographics .....		192
Appendix M: Article based on Study 3 .....		193

Appendix N: Brief Experiential Avoidance Questionnaire.....	202
Appendix O: Experiential Avoidance in Caregiving Questionnaire .....	203
Appendix P: Relational Anxiety subscale of the Relationship Awareness Scale .....	204
Appendix Q: Hostility subscale of the Aggression-Questionnaire .....	205
Appendix R: Reverse analysis figures .....	206
Appendix S: Article based on Study 4 .....	210
Appendix T: Intake Procedure for MMR program .....	231
Appendix U: Mindfulness Awareness Attention Scale.....	235
Appendix V: Outcome Rating Scale (ORS).....	236
Appendix W: Session Rating Scale (SRS).....	237
Appendix X: Email Invitation to Focus Groups.....	238
Appendix Y: Consent Form and Participant Information Sheet for Focus Groups .....	239

## LIST OF TABLES

Table 1 <i>Demographic characteristics of sample</i> .....	17
Table 2 <i>Demographic characteristics of sample</i> .....	38
Table 3 <i>Severity of Interpersonal problems (IIP-32) for mental health carers and a community sample</i> .....	39
Table 4 <i>Proportions of Interpersonal problems of mental health carers (n=147) compared to community sample (n=800)</i> .....	41
Table 5 <i>Proportions of significant interpersonal problems for shorter term (n = 65) and longer term (n = 82) mental health carer groups</i> .....	42
Table 6 <i>Descriptive statistics and correlations (N = 145)</i> .....	60
Table 7 <i>Structure of the Me and My Relationships Program</i> .....	89
Table 8 <i>Means, standard deviations and repeated measures ANOVA's over time (n = 24)</i> ...	98
Table 9 <i>Proportions of individuals experiencing above average (<math>\geq 60</math>) interpersonal problems at different points during the intervention (n = 24)</i> .....	100

# **CHAPTER ONE:**

## **OVERVIEW**



## **1.1 The caregiving context**

The term 'carer' refers to any person who provides regular unpaid support to another person experiencing illness or disability, which may, for example, be associated with physical, intellectual or psychosocial disability, mental illness, or ageing. This support can take a number of forms and may be practical or emotional in nature. Practical support includes financial assistance, completion of household tasks, transporting the care-receiver and assisting with health needs (Carers NSW, 2016). Emotional support includes encouragement, listening and giving advice (Carers NSW, 2016). In addition to direct activities, carers often need to be 'on call' in case unforeseen needs, an emergency or crisis arises (Diminic et al., 2016). In order to conduct these activities, the carer often needs to make substantial changes to their lifestyle, which may include decreasing work hours, reducing time leisure activities, and limiting social interactions (Grandón, Jenaro, & Lemos, 2008; Kenny, King, & Hall, 2014).

The caregiving role has been associated with positive experiences, such as personal satisfaction, self-esteem and social connection (Lloyd, Patterson, & Muers, 2016). However, the discourse on caregiving has primarily focused on the negative impacts of the role, which are cumulatively referred to as 'carer burden' (Hoenig, & Hamilton, 1966; Lloyd & Carson, 2005; Rowe, 2012). Carer burden is a multidimensional construct that involves psychological, social and physical aspects, viewed both objectively and subjectively (Bastawrous, 2013; Pampani Borgo, de Abreu Ramos-Cerqueira, Torres, Borgo, & Ramos-Cerqueira, 2017; van der Lee, Bakker, Duivenvoorden, & Droes, 2014). Research in this area has identified a range of negative outcomes associated with the caregiving role; including physical strain, difficult emotions such as anger, guilt and shame, low quality of life and interpersonal conflict (Adelman, Tmanova, Delgado, Dion, & Lachs, 2014; Mackay & Pakenham, 2012). These negative impacts have been found to persist across various life domains; such as work, leisure, social contexts, physical health and mental health (Dinos, Serfaty, Weich, King, & Stevens, 2004; Suro & de Mamani, 2013). Within Australia, caregivers consistently report reduced

wellbeing and increased distress compared to the general population (Hussain, Wark, Dillon, & Ryan, 2016). For example, the Australian Unity Wellbeing Index (Cummins et al., 2007), which studies population groups across Australia, considered the subjective wellbeing of 4,107 carers and found them to possess the lowest wellbeing of any population group surveyed in the history of the Index.

## **1.2 Mental health caregiving**

A mental health carer is defined as any “individual who provides ongoing personal care, support and assistance to any other individual who needs it because that individual has a mental illness” (Carers Recognition Act, 2010, p. 4). As of 2015 there were 2.8 million carers within Australia, of whom 8.6% were mental health carers (Australian Bureau of Statistics, 2015). Furthermore, this is likely to be an underestimate considering the prevalence of mental health difficulties in the general population. Nearly half (45%) of Australians aged 16-85 years are estimated to experience mental health difficulties during their lifetime, and one in five Australians experience mental illness in any year (Australian Bureau of Statistics, 2007). This thesis will focus on a specific subset of the carer population- those ‘lay carers’ who provide care for a loved one experiencing mental illness. It has been estimated that 50-90% of individuals with mental illness reside with family members, whom act as lay carers through the provision of practical and emotional support (Östman & Kjellin, 2002). In such cases, the care given is considered informal, as “it does not form part of a paid contract; instead, it relies on a sense of responsibility for and commitment to the other” (Davies, 2000, p.42).

There are a number of positive aspects of caring for someone with mental illness. Mental health carers have opportunities to witness the care-receiver learn to cope with the symptoms of their mental illness, attain recovery and integrate into the community (Coleman & Smith, 2007; Gray, Seddon, Robinson, & Roberts, 2009). Other benefits include increased resilience, awareness of one’s own strengths, the care-receiver’s gratitude and a sense of

accomplishment (Chang et al., 2016; Chen & Greenberg, 2004; Zauszniewski, Bekhet, & Suresky, 2009). In turn, these positive aspects are associated with lower levels of burden and depression for caregivers (Pinquart & Sorensen, 2003). However, the nature of caring for someone with a mental illness also brings unique challenges not present in other conditions. Depending on the diagnosis, mental health carers need to manage difficult symptoms such as the apathy and emotional withdrawal that accompanies depression (Wasley & Eden, 2017), the communication deficits that accompany schizophrenia (Bazin, Sarfati, Lefrère, Passerieux, & Hardy-Baylé, 2005; Best & Bowie, 2013) and the suicidality that can accompany Borderline Personality Disorder (Bailey & Grenyer, 2015). The trajectory of mental health for the person with mental illness fluctuates between unwellness and recovery and can include significant functional impairments, episodes of hospitalization, and the need for medication (Jans & Kraus, 2004). This unpredictability demands a high degree of flexibility and responsiveness from the carer.

As part of their caregiving role, mental health carers often need to help the care-receiver navigate the mental health system. Throughout this process, the carer is often experiencing their own psychological distress, and so mental health carers are frequently referred to as ‘hidden patients’ (McBride, 2016; Sprung & Laing, 2017; Kızılırmak & Küçük, 2016). Fluctuations in coping and wellbeing are common, with mental health carers experiencing cycles of negative affect, burnout, and worry about the care-receiver’s wellbeing (Jeon, Brodaty, & Chesterson, 2005; Jeon & Madjar, 1998). This distress can reach clinical levels, with carers experiencing very high rates of depression and anxiety as compared to the general population (Martens & Addington, 2001; Saunders, 2003). Furthermore, mental health carers are especially vulnerable to stigma (Gray et al., 2009)- which refers to negative societal attitudes and beliefs- which is in turn associated with reduced carer self-esteem and self-efficacy (Drapalski et al., 2013).

Mental health carers have a role that is inherently different to other caring contexts in

that it is typically of a longer duration (Broady & Stone, 2015). The average length of caring for mental health caregivers is 8.7 years, in comparison to the average length for caregivers of any kind of condition/illness which is 4 years (Weber-Raley, 2016). Within Australia, almost half (49.2%) of principal mental health carers have been in their role for greater than ten years (Australian Bureau of Statistics, 2012). There are competing hypotheses within the broader carer field regarding the impact of caring for such a long length of time. The ‘wear and tear’ hypothesis proposes that the longer caregiving is sustained, the greater the deterioration in caregiver mental health and wellbeing (Townsend, Noelker, Deimling, & Bass, 1989). The adaptation hypothesis proposes that the new demands of caregiving lead to an initial decrease in carer wellbeing, a state of ‘being consumed’ by the role (Wynaden, 2007). However, there is stabilization or improvement in functioning as caregivers learn to cope effectively with, and balance, the role (Townsend et al., 1989; Wynaden, 2007). The trait hypothesis proposes that caregivers maintain a consistent level of adaptation, due to pre-existing coping skills and resources (Haley & Pardo, 1989).

Empirically, there continues to be uncertainty regarding the effects of duration of caring on wellbeing and coping. Support for the wear and tear hypothesis come from studies indicating longer term care is associated with higher burden (Sugihara, Sugisawa, Nakatani, & Shibata, 1998) and deterioration of psychological well-being (Pot, Deeg, & Van Dyck, 1997). In contrast, other studies have indicated shorter term care is associated with higher burden than longer term care (Zainuddin & Arokiasamy, 2003) and that caregiving demands and difficulties reduce over time (Yates, Park, Hug, Kupzyk, & Skradski, 2018), lending support to the adaptation hypothesis. Moreover, some research has indicated duration of caregiving has no association with stress (Hoffman, Lee, & Mendez-Luck, 2012), supporting the trait hypothesis. Research in this area has focused on particular carer subgroups such as those caring for individuals with dementia or the elderly, or caregivers more broadly, with no studies specific to mental health caregivers. In addition, definitions of ‘long term care’ vary across these studies

and do not exceed the ten year mark identified as holding significance for those caring for someone with mental illness.

### **1.3 Carer relationships**

The definition of ‘mental health carer’ is a point of contention, with criticisms that caregiving definitions focus on the practical tasks associated with the role and overlook interpersonal components (Henderson & Forbat, 2002; Sadler & McKeivitt, 2013). It has been argued that such functional definitions unnecessarily professionalize the relationship, as for many mental health carers their role is conceptualized as an extension of their existing relationship, e.g. ‘I’m not a carer, I’m a mother’ (Henderson, 2001). It has been suggested that this separate emphasis on the ‘carer’ and ‘person needing care’ represents a theoretical bias towards a dichotomous notion of caregiving (Chattoo & Ahmad, 2008). In line with this, Australian social policy has increasingly recognized and supported mental health carer relationships. In 2006 the Victorian Government explicitly prioritized the carer relationship through the ‘Recognizing and supporting carer relationships’ policy framework (Australian Department of Human Services, 2006). This policy emphasizes the importance of current relationship dynamics, relational history and reciprocity in understanding the carer role. In addition, the NSW Carers Charter outlines thirteen principles to guide work with carers, one of which states “the relationship between carers and the person for whom they care should be respected” (Carers Recognition Act, 2010, p. 6). These policies reflect a move away from simply considering individuals in isolation.

Common to all definitions of mental health caregiving is the interconnection between two people. This connection may be that of a parent, sibling, adult child, other relative, spouse, friend, etc. The nature of this relationship undergoes significant changes as the caregiving role is initiated, with the balance of power changing as the parties become the ‘caregiver and the

care receiver' (Oyebode, 2003). During this adjustment time the new relationship, its boundaries and expectations need to be navigated. These changes can result in a form of 'complicated grief' where the mental health carer holds ambivalent feelings towards the care receiver and is left with a sense of betrayal or loss in that the person they once knew is changed, as is the imagined future for, and with, that person (Campling & Jones, 2001).

The type of relationship between the mental health carer and care-receiver has an impact on how the role is experienced. Parents, spouses, adult children and non-relatives experience caregiving differently due to differences in prior expectations, dependencies and relationship dynamics. Comparative studies have sought to determine those types of carers most at risk for diminished wellbeing- with findings consistently indicating that caring for a spouse is associated with greater risk of burden, depression and diminished subjective wellbeing as compared to those caring for a child and/or parent (Kim, Chang, Rose, & Kim, 2012). It has been suggested that spouse caregiving is a unique experience, marked by significant emotion pressure, isolation and attempts to accommodate the caring role into the existing romantic relationship (Lawn & McMahon, 2014). However, such comparative studies are based on carers as a whole (or particular subgroups such as dementia carers), with little specific research on mental health carers. When dyadic associations are considered (i.e., relationship type and care receiver disability); parents caring for a child with mental illness have been indicated as holding the lowest levels of subjective wellbeing (Hammond, Weinberg, & Cummins, 2014). This suggests that the subgroup of parents caring for a relative with mental illness may be at particular risk.

The quality of relationship between the carer and care receiver has a direct influence on whether the carer continues to provide lay care or whether the care-receiver is institutionalized (Spruytte, Van Audenhove, & Lammertyn, 2001). The protective benefits of positive carer/care receiver relationships have been indicated across numerous studies, with connection and attunement linked to carer coping and resiliency (Wadham, Simpson, Rust, & Murray, 2016),

positive ratings of the relationship associated with increased wellbeing (Braithwaite, 2000) and positive relationships linked to lower levels of carer stress and depression (Oyebode, 2003). A challenge for mental health carers is maintaining quality relationships in the context of a care role that can be chaotic and unpredictable, and that brings with it a unique set of interpersonal difficulties to navigate.

Penning, Wu and Zheng (2016, p.1102) note that “limited research attention has been directed toward the implications of caregiver–care recipient relationships for an understanding of caregiving outcomes”. Work in this area is slowly growing, with the last decade seeing an increased focus on the complex interpersonal patterns that exist between carers and care receivers. Notable examples within the broader carer field include exploration of relationship dynamics and role changes within cancer care dyads (Ussher, Wong, & Perz, 2011), the interpersonal experiences and sense of couplehood within spouse dementia carer dyads (Wadham et al., 2016), attachment patterns within dementia carer dyads (Nelis, Clare, & Whitaker, 2012), and factors associated with the quality of relationship in dementia carer dyads (Spector, Charlesworth, Orrell, & Marston, 2016). A minority of work has been specific to mental health carers, for example Lawn & McMahon (2014) explored the specific experiences and needs of those caring for a spouse with mental illness. To achieve this, semi-structured interviews were conducted with 28 spouse carers and the transcripts qualitatively analyzed. Thematic results indicated the centrality of the relationship in how carers described their role, with love, loyalty and commitment central themes, though it was noted that these experiences may be unique to the spousal role. Additional research is needed to further our understanding of the unique interpersonal qualities of mental health carer dyads.

In sum, despite increased recognition of the relational context of caregiving, we still have little understanding of the interpersonal experiences unique to mental health caregivers. The literature to date highlights the importance of conceptualizing caregiving utilizing relational frameworks. One such framework is interpersonal theory.

## **1.4 Interpersonal theory**

Within the field of psychology, the importance of the interpersonal perspective was first championed by Henry Sullivan (1953). In contrast with the dominant discourse at the time which focused on Freud's belief that behavior is driven by the unconscious, Sullivan argued that human behavior is driven by interpersonal motives (Sullivan, 1953). Sullivan proposed that all behavior represents an attempt to get one's needs met through interpersonal interactions, as well as to reduce or avoid anxiety (1953). Sullivan's ideas, together with the works of other pioneers such as Erikson (1959, 1968), Leary (1957, 1996) and Wiggins (1996), formed the basis for interpersonal theory. Interpersonal theory has been studied and utilized widely across areas of research including developmental psychology, personality and psychopathology.

Interpersonal theory describes all behavior according to the dimensions of control and agency. Control reflects strivings for power and mastery, and ranges from yielding behavior to controlling behavior (Wiggins, 1996). Affiliation reflects strivings for intimacy and social solidarity, and ranges from hostile behavior to friendly behavior (Wiggins, 1996). An individual's use of control and affiliation is thought to develop over time according to age appropriate social learning (Sullivan, 1953). The resulting behavioral patterns can vary in their functionality- with some effective at meeting a need (e.g. a need for power) whilst others are ineffective and born of frustrated motives. When these patterns become rigid, ineffective and used without contextual appropriateness, interpersonal problems can develop. Interpersonal problems are defined as recurrent difficulties in interacting or attempting to interact with others (Horowitz et al., 1993) and are frequently reported by individuals seeking psychotherapy (Holtforth, Bents, Mauler, & Grawe, 2006).

Work on understanding and classifying interpersonal problems has been pioneered by Horowitz (Horowitz, 1979; Horowitz, Alden, Wiggins, & Pincus, 2000; Horowitz et al., 2006). To develop a framework of interpersonal problems, Horowitz (1979) recorded intake interviews of clients presenting for psychotherapy. Two observers recorded statements of



interpersonal difficulties made by these individuals, resulting in 127 problems that manifested in two ways. Firstly, behavior one consistently finds 'hard to do' - inhibitions or skill deficits that are often expressed as 'it is hard for me to do X' or 'I can't do Y'. Secondly, behaviors one 'does too much', that is, excesses or compulsions often expressed as 'I do X too much' or 'I can't stop doing X' (Horowitz, 1979; Gurtman, 1992; Horowitz et al., 2000). These 127 problems were studied systemically to find common features and resulted in the development of the interpersonal problems circumplex.

The interpersonal problems circumplex is an empirically established model that graphically represents interpersonal problems (see Figure 1) (Alden, Wiggins, & Pincus, 1990; Horowitz et al., 2006). Control is represented as a vertical axis, affiliation as a horizontal axis, with interpersonal problems corresponding to combinations of these two dimensions (Alden, et al., 1990; Horowitz et al., 2006). Eight domains of behavior are defined, each describing a different interpersonal theme, namely: domineering/controlling, vindictive/self-centred, cold/distant, socially inhibited, non-assertive, overly accommodating, self-sacrificing and intrusive/needy. Each domain can be specified as a weighted combination of dominance and affiliation- for example, the socially inhibited domain represents low control and low affiliation, whereas the intrusive/needy domain represents high control and high affiliation.

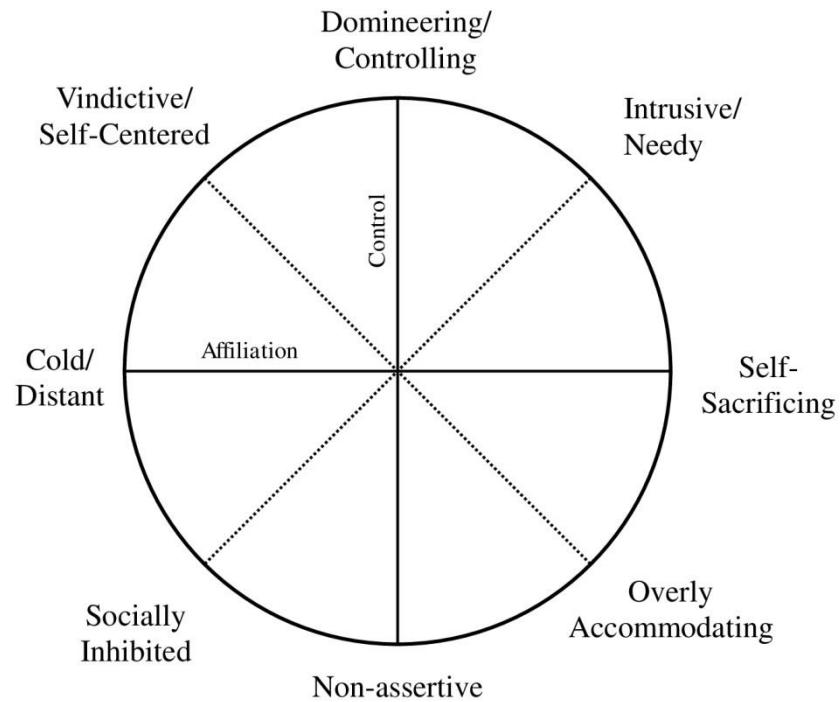


Figure 1. The Interpersonal problem Circumplex

The interpersonal circumplex offers a unique framework to appreciate conceptual similarities and differences among populations. The interpersonal circumplex has been used to conceptualize the interpersonal problems experienced in relationship dyads across a range of contexts, such as parent-child relationships and romantic relationships (Wilson, Revelle, Stroud, & Durbin, 2013), heterosexual and homosexual relationships (Lee, Harkless, Sheridan, Winakur, & Fowers, 2013), as well as clinical groups such as depressed individuals (Barrett & Barber, 2007), anxious individuals (Salzer, Winkelbach, Leibing, Pincus, & Leichsenring, 2011), personality disorders (Salzer et al., 2013), drug use (Klimas, 2014) and alexithymia (Ghiabi & Besharat, 2011). The significance of understanding the interpersonal characteristics of a population is highlighted by a growing body of work indicating interpersonal problems predict treatment responses (Alden & Capreol, 1993; Beutler, Machado, Engle, & Mohr, 1993; Cain, Pincus, & Holtforth, 2010; Horowitz, Rosenberg, & Bartholomew, 1993; Newman,

Jacobson, Erickson, & Fisher, 2017; Renner et al., 2012). For example, work on individuals with Generalized Anxiety Disorder (GAD) has identified that the intrusive interpersonal problem domain represents a distinct subtype within this population (Salzer et al., 2011). As intrusive interpersonal problems respond most favorably to concrete, action orientated approaches such as behavioral therapy, this finding has led to improvements in the treatment of individuals with GAD (Newman et al., 2017).

To date, there is no published research that has utilised the interpersonal problems circumplex as a means of conceptualising and understanding mental health carer relationships. Interpersonal theory offers a unique perspective to consider mental health caregiving. From this perspective, the emphasis is not on what someone is (i.e., a ‘carer’ or ‘care receiver’) but rather on what someone does. It is in these interactions- involving what carers and care receivers do with each other- where dysfunction is most poignantly expressed (Pincus & Wiggins, 1990). Furthering our understanding of what mental health carers and care receivers do with each other – and the unique interpersonal problems within this- represents a novel area of research.

## **CHAPTER TWO:**

# **STUDY ONE- Interpersonal Problems amongst Mental Health Carers**

Aspects of this study have been accepted for publication (see Appendix A)

Quinlan, E., Deane, F. P., & Crowe, T. (2018a). Interpersonal Problems amongst Mental Health Carers: A qualitative study. *Social Work in Mental Health*.doi: 10.1080/15332985.2018.1445062.

## **2.1 Outline and aims**

The purpose of this study was to explore mental health carers' accounts of interpersonal problems within their caring relationship. Grounded in Horowitz's (1979) conceptualization of interpersonal problems, this study explored which behaviors carers 'find hard to do' and those behaviors carers perceive they 'do too much' in their caring relationship. Being a topic area with little previous work, Study 1 was designed as exploratory and utilized qualitative methodology.

Research question: "What are mental health carers' experiences of interpersonal problems within their relationship with the care-receiver?"

## **2.2 Method**

### **2.2.1 Participants**

Participants were 28 carers of people with a mental health disorder. Participants met the following inclusion criteria: a) 18 years or older, b) self-identify as a carer of someone with a mental health disorder, c) self-identify as experiencing relationship difficulties with the person for whom they provide care. Recruitment took place across three carer support agencies between 2015 and 2017 and targeted mental health carers on the waiting list for relationship support programs. Staff members explained the purpose of the study and asked for permission to pass on contact information to the researchers, who then made contact to provide further information, answer questions about the study, and organize the practicalities of the interview. All interviews were conducted at the carer agency that the carer was accessing. This study was approved by the University of Wollongong ethics committee (Appendix B).

### **2.2.2 Data collection**

Interviews (Appendix C) had an introductory sequence which consisted of a discussion explaining informed consent, confidentiality and the context of the carer's referral (Appendix D). The first component of the interview began with an invitation for the carers to 'describe

your relationship with [care receiver], and how and why it is/was a problem for you'. Based on Rosenthal and Fischer-Rosenthal's (2004) biographical narrative method, the aim was to elicit a detailed narrative indicating how the carers viewed their relationship, how they described the emergence of interpersonal problems, and how they presented themselves and the care receiver. During this part of the interview the researcher listened without interruption.

The second component of the interview focused on a recent conflict between the mental health carer and care-receiver, and was based on Core Conflictual Relationship Theme (CCRT) methodology. The CCRT method is derived from Luborsky's theory (1984) that an individual's relational exchanges are underpinned by a typical core conflict. The CCRT method explores this core conflict through exploration of an interpersonal narrative; identifying the individual's wishes/desires, reaction and responses to the other person, and the other person's reaction to them (Luborsky & Crits-Christoph, 1998). Our framework for exploring this took place in a narrative of recent conflict between the mental health carer and care-receiver, with set questions utilized to explore the above areas. The full set of questions was: a) Can you please describe the event or interaction, and what makes it significant for you? b) What were you thinking and feeling at the time? c) What did you want at the time? What did you want from the other person? d) How did the other person react? e) How did you cope with that? f) What happened in the end? g) What do you hope for in this relationship? How do you want your interactions to be different in the future? Interviews were audio-recorded for the purposes of transcription and lasted between 20 minutes and 75 minutes, with an average length of 34 minutes.

### **2.2.3 Analysis**

The 28 interviews were transcribed verbatim and de-identified labels were used in the interest of confidentiality. Thematic analysis was guided by the steps outlined by Braun and Clarke (2006). Following careful reading and re-reading of transcripts, initial codes were developed

based on emotional, social and behavioral content expressed by the carers as either ‘occurring too much’ or that they found ‘hard to do’. In developing the codes, the theoretical framing of this study narrowed our analytical focus. Codes followed the following inclusion criteria: a) they needed to be interpersonal in nature; that is, relating to relationships or communication between people; and b) they needed to reflect a difficulty or problem.

To ensure reliability of codes, a manual was formed which listed codes, descriptions, example quotes and emergent categories. These codes underwent successive rounds of comparison, within and across interviews, as we compared their content and meaning in relation to one another and to the dataset in its entirety. During this process the manual was regularly updated, as codes could be amended, subsumed under other codes, or new codes created. The coding framework was refined by clustering codes together under umbrella themes, by identifying what was inherently common to or about them (that is, how they connected). Once the list of themes was finalized, a name was given to each theme thought to capture its essence and the final report was produced.

## **2.3 Results**

### **2.3.1 Demographics**

The potential sample consisted of 35 mental health carers on the waiting list for relationship support programs. Of these, 4 declined to participate in the study and 3 dropped out whilst scheduling the interview; citing time constraints. Participants ( $n = 28$ ) were adult mental health carers. The majority of participants (approximately 78%) were caring for a family member; consisting of parents (60%), adult children (4%), and other relatives (14%). The remaining sample consisted of partners (18%) and other non-relatives (4%). The vast majority of participants were women (86%). Just over half (57%) of participants were long term carers, having cared for the care receivers for over 10 years. Table 1 shows further descriptive information on the sample obtained.

Table 1  
*Demographic characteristics of sample*

Category	Frequency (%)
Sex	
Female	24 (86%)
Male	4 (14%)
Age	
26-50	12 (43%)
50+	16 (57%)
Relationship to care-receiver	
Parent	17 (60%)
Spouse	5 (18%)
Adult child	1 (4%)
Other relative	4 (14%)
Other non-relative	1 (4%)
Length of time caring	
1-6 years	7 (25%)
6-10 years	5 (18%)
10+ years	16 (57%)
Mental Health Condition of care-receiver (as identified by carer)	
Anxiety	12 (43%)
Depression	9 (32%)
Borderline personality disorder	6 (21%)
Bipolar	5 (18%)
Post-traumatic stress disorder	5 (18%)
Schizo-affective	4 (14%)
Drug induced psychosis	3 (11%)
Obsessive compulsive disorder	2 (7%)
Narcissistic personality disorder	1 (4%)

*Note.* Frequency and percentages of mental health conditions greater than sample size (n=28) due to multiple diagnoses being able to be endorsed

### 2.3.2 Thematic analysis

Thematic analysis identified the following themes from the interview data: emotion management; aggression; avoidance; responsibility; control; communication; role challenges. These themes and incorporated subthemes are set out in the following section. In what follows, quotes from participants are coded according to relationship to care-receiver: parent ('P'), child



(‘C’), other relative (‘OR’), spouse (‘S’) or other non-relative (‘ON’); and length of caring role: those caring for less than ten years defined as shorter term (‘ST’) and those caring for ten years or greater defined as longer term (‘LT’).

*i. Emotion management*

The most prevalent theme- that is, the theme which appeared across the highest number of sources- was emotion management. Emotion management was defined as the ability to readily accept and successfully manage one’s own feelings. Emotion management presented as an interpersonal problem when emotions were presented as existing in ‘excesses’ and these excesses were described as ‘hard to handle’. Emotion management was seen to consist of four subthemes; anger, upset, anxiety and non-specific.

*a. Anger*

In the first category of emotion management, carers described difficulties managing anger (as an emotion or behavior) within the carer relationship. Anger was the only category of emotion management in which the interpersonal problem was cited as originating from both the carer and care-receiver. Carers described their own interpersonal difficulties in managing anger:

I feel a lot of frustration, anger (OR4-LT)

I don't want to react the way sometimes I do, I react really angrily back (P4-ST)

There is probably a hell of a lot of anger and shit in relation to that which I haven't let – dealt with before now (P3-ST)

Carers also described the care-receivers struggles with anger. As noted below:

You’d have to see it to believe how angry he gets (OR2-ST)

He does over-react. It works for him. He storms off, gets really angry and it works because everyone backs off (OR4-LT)

He is quite often, exploding in anger and doing something that he then regrets later (ON1-LT)

*b. Upset*

The second category of emotion management was ‘upset’; seen to consist of feelings of unhappiness and despondency. Carers described difficulties in managing these emotions in the context of their caring relationship. As described by three carers:

I just cry [long pause]. And yeah, there’s not- there’s not much else (P14-LT)

I feel hurt and upset and I ... don’t know what to do (P17-LT)

I just get very upset, which I know is not helpful, that’s just what’s happening (P4-ST)

*c. Anxiety*

The third category of emotion management was anxiety; seen to consist of feelings of worry, nervousness, or unease. Carers described difficulties managing anxious emotions in the context of their caring relationship. As described by three long term carers:

I have a lot of anxiety towards him because I’m always walking around on eggshells (P10-LT)

When I feel overwhelmed I get panic attacks. That can happen if my husband picks up the phone and I know it’s [care-receiver] and it sounds like there’s something going wrong. I jump forward and think of the worst (P7-LT)

You would think after fifty years I would not worry still (S5-LT)

*d. Non-specific*

The fourth category of emotion management was ‘non-specific’, which encapsulated descriptions that made no reference to a particular emotion. As illustrated in the following quotes, carers often reflected that emotions themselves were hard to handle.

I just have to cope with my emotions a bit better, try to deal with it a bit better (OR3-ST)

Externally okay, but internally not well... that's why I need help, because I'm not coping very well internally (P17-LT)

ii. *Avoidance*

The second most common theme across transcripts was avoidance. Avoidance was defined as attempts to suppress unwanted experiences, and to alter the frequency at which they occur.

Avoidance presented as an interpersonal problem as it was a behavior which existed in 'excesses' within the relationship to account for behavior found 'hard to do'. Avoidance was coded under three subthemes: physical, verbal and internal.

a. *Physical avoidance*

The first category of avoidance was physical; defined as removing oneself *physically* from a situation as a means of coping. Carers often noted that they utilized physical avoidance as a situational response to current conflict, such as:

I was just trying to remove myself so as not – so for it to not escalate (P4-ST)

I just ended up walking out (S1-ST)

Physical avoidance was also described as a pervasive coping strategy, that is, not situationally bound. In this sense, carers utilized physical avoidance in efforts to avoid potential conflict. This is reflected in the following excerpts:

If you are living with someone like that you've got to get out all the time- you don't stay (P2-ST)

The less time we stay the less chance of her getting agitated or anxious (P12-LT)

Physical avoidance was the only category of avoidance in which the interpersonal problem was cited as originating from both the carer and care-receiver. Carers described this pattern of physically distancing as also occurring for the care-receiver. Examples include:

He'll storm off; he'll avoid, avoid, avoid, and avoid (OR4-LT)

He tends to just walk away and I'm saying, "I haven't finished talking to you yet," halfway through a sentence (P13-LT)

*b. Verbal avoidance*

The second category of avoidance was verbal; defined as restricting what one says verbally as a means of coping. Carers described finding it hard to communicate with the care-receiver, and thus verbal avoidance was utilized as a coping strategy. As with physical manifestations of avoidance, carers noted that they utilized verbal strategies as a situational response to current conflict. Examples include:

Change the subject mode (P7-LT)

That's why I just shut up (OR2-ST)

Verbal avoidance was also described as a pervasive coping strategy, that is, not situationally bound. In this sense, carers utilized verbal avoidance in excess, in efforts to avoid potential conflict. This is reflected in the following excerpts:

I don't talk to him anymore unless I have to (P5-ST)

If I be quiet, and get out of the house, it's okay (P2-ST)

*c. Internal avoidance*

The third category of avoidance was internal; defined as attempts to reduce the frequency and/or intensity of internal experiences such as thoughts, feelings and memories. Carers described finding it hard to manage the internal experiences that arose due to their carer relationship, and thus internal avoidance was used as a means of coping. The internal avoidance described by carers consisted of efforts to numb/dull emotions, or attempting to ignore thoughts and feelings altogether. Carers described the process of internal avoidance as a struggle. This is illustrated by the following quotes:

I try to ignore it; not let it affect me too much. Try to distance myself to a degree (S3-ST)

And just gone about my stuff and just sort of ignored it. I haven't really dealt with it in such a way, but I've kind of ignored it (P15-LT)

The theme of internal avoidance has some overlap with that of emotion management. It is argued that these themes, whilst similar in that they both draw on emotions, represent distinct interpersonal problems. The interpersonal problem underlying internal avoidance is the inhibition of internal experiences; thoughts and feelings are experienced as 'hard to handle', leading to struggles with internal avoidance. In contrast, in emotion management the underlying interpersonal problem is difficulty managing excess of emotion.

### *iii. Aggression*

The third most common theme across transcripts was aggression. Aggression was defined as behaviors that can result in real or perceived physical and psychological harm to oneself, other or objects in the environment. Aggression presented as an interpersonal problem as it was a behavior which existed in 'excesses' and that was 'hard to handle' within the carer relationship. In all cases where carers discussed incidents of aggression, the support organization was made aware (with the consent of the carer) and responded in line with existing risk management protocols. Aggression was coded under two subthemes: verbal aggression and physical aggression.

#### *a. Verbal hostility*

Verbal hostility was understood to be the use of words to harm another or attacks another person's self-concept. Throughout the category of verbal hostility, the interpersonal problem was cited as originating from both the carer and care-receiver. Carers described experiencing an excess of hurtful or insulting comments within the carer relationship. Experiences include:

She'll insult me with a lot of, you're weak, you're going to cry, you're hopeless, things like that...

It's the actual words she uses that really hurt (P4-ST)

She says the most nasty vicious things to you and expects you just to forgive her (C1-LT)

He calls me all the names under the sun (OR2-ST)

Verbal hostility was frequently framed as occurring in the context of conflict. Arguments were put forward as a common experience within the relationship. This is illustrated by the following quotes:

You've got her constantly arguing (P5-ST)

I responded with a screaming match (P10-LT)

Just being up in his face and yelling and screaming at him (S1-ST)

*b. Physical aggression*

The second category of aggression was physical; seen as threatening behavior towards another person or an object. Excesses of physical aggression within the relationship were described as originating from the care-receiver, with examples as follows:

She would hit me around the head (S3-ST)

So one day she just pushed me up against a cupboard and without realizing it she threw me down the stairs (P2-ST)

He was willing to throw me out of the way... He is willing to be physically violent (P16-LT)

Carers also described physical aggression towards an object as being a common experience within the carer relationship. In describing the care-receiver's interpersonal behavior, the following carers noted:

He has broken windows before (ON1-LT)

Because she's damaged so much up here, we don't ask her to come intentionally anymore because of the damage she does (P12-LT)

He'll slam the door (P14-LT)

*iv. Responsibility*

The fourth theme was responsibility. Responsibility was defined as the state of being answerable or accountable for something within one's power or management. Responsibility as an interpersonal problem ranged from an individual taking on too much responsibility to individuals not taking on sufficient responsibility.

Carers noted that responsibility existed in excesses within their relationship with the care-receiver and noted interpersonal problems around having or accepting "too much" responsibility. These struggles with excess responsibility are illustrated by the following:

I would just automatically pick it up and take it on as my responsibility (P3-ST)

There's a lot of reliance on me. I'm the person he comes to (OR4-LT)

I am the one who hears about that, I'm the one who deals with that (P4-ST)

When reflecting on responsibility, many carers perceived that they were solely responsible for the care-receiver's wellbeing. There was a pervasive sense of being the only one, as reflected in the following excerpts:

I've been the only one that's been here regularly in his life (P10-LT)

I'm the only person there that is going to be able to encourage him to get out of bed, shower, eat, all those sorts of things (P14-LT)

And again in that comes the responsibility of knowing 'well he's going to come to somebody so if I'm not there, who else is going to be there?' (OR3-LT)

Carers noted that there was a lack of responsibility or taking responsibility was ‘hard to do’ within the carer relationship. These difficulties with responsibility were described as originating from the care-receiver, as follows:

She has got no responsibility- she has got some but not enough to manage on her own (P2-ST)

She kept coming and running to me for help all the time (S3-ST)

There’s no capacity on my husband’s side to accept or take ownership for behavior and change it (S2-ST)

v. *Control*

The fifth theme was that of control. Control was defined as power to influence or direct people's behavior or the course of events. As with responsibility, control ranged from excesses or insufficient control within the carer relationship. Excesses of control were attributed to originating from both ends of the relationship; that is, carers identified that both they and the care-receiver excessively used control. For example:

He can control every situation (S1-ST)

There’s still that need to control things from his point of view, which is extremely frustrating for me and that’s probably the root cause of a lot of our conflicts actually (S2-ST)

Me observing and over controlling, and stepping in (OR4-LT)

Carers also noted that control was insufficient- there was a lack of control or gaining control was ‘hard to do’- within the carer relationship. Carers perceived that control being ‘hard to do’ originated from their end of the relationship, with examples as follows:

You don’t have any control (P16-LT)

I feel like I don’t have a say...I just feel like I have to back down (OR3-ST)



I know people say to me 'you let her' but if you... she is very difficult and she is abusive. It's hard.  
It's really hard (P2-ST)

Whilst carers self-identified as having insufficient control over aspects of their relationship, many attributed this to the care-receivers perceived defiance. Carers described the care-receiver as behaving oppositionally, which left them feeling powerless to take control within the relationship.

I thought 'it doesn't matter what I say or what I do, he's just gonna do what he wants anyway'  
(P16-LT)

He has been told that he shouldn't do it and that he must stop and it just continues (ON1-LT)

When reflecting on how control presented within the relationship, many carers self-identified that this is an area they wanted skills to help them manage. This presented regardless of which end of the spectrum control was identified at- the common element was a desire for control to 'balance out'.

I need to be able to say in a way that is not boom boom, direct and confronting. I need to be able to say to him in a softer way (P8-LT)

I just want to – how to get control over the conversation instead of being overpowering and overbearing of somebody (OR3-ST)

I need to create better boundaries (P17-LT)

#### vi. *Communication*

The sixth theme was communication. Communication was defined as the imparting or exchanging of information by speaking, writing, or another medium. Communication presented as an interpersonal problem as it existed as inadequate within the relationship between the carer and care-receiver. Carers described finding it hard to communicate with the care-receiver,

contributing to relational difficulties. This is illustrated by:

It really does feel uncomfortable not going with the flow where she's been at and not feeling comfortable enough in applying different ways of communicating with her (P3-ST)

It's like talking another language, and if you've only got one – if one of the words is the wrong word in that sentence it changes the whole meaning of the sentence (P13-LT)

Communication is non-existent (P10-LT)

Communication between the carer and care-receiver was confounded due to a lack of understanding in the relationship. Carers expressed feeling like they could not understand their loved one, and that the care-receiver communicated in a manner that also displayed a lack of understanding. This is illustrated by:

I'd like to try and understand more of where he's coming from (P16-LT)

I wanted her to understand my point of view (OR3-ST)

Whilst communication difficulties existed on both sides of the relationship, carers noted that a perceived inability/unwillingness to listen originated from the care-receiver. Examples include:

I want to be heard, I don't feel I'm heard, like very, very, very rarely am I ever heard in any interaction generally (S2-ST)

I would like him to take more notice of what I say (P13-LT)

vii. *Role challenges*

The final theme was role challenges, seen to be difficulties navigating the expected behavior pattern associated with one's roles. A common challenge for carers was navigating their dual role as a carer to the care-receiver and a person in a relationship (i.e. parent, spouse, relative etc.) with the care-receiver. When discussing the difficulties in juggling these two roles, there

was a sense that the carer role took prominence. Carers expressed feeling like they could not be a person in a relationship with the care-receiver (i.e. be a parent, a spouse, etc.), due to the demands to fulfil their role as a carer. This is evident in the following quotes:

I feel like I'm nearly 100% carer, I'm not – I don't really have a wife role at all (S2-ST)

I always feel like I'm a referee, an umpire and I think that cuts out a lot of intimacy because then I'm taking almost like a parent figure in that role (S3-ST)

I can't play both roles (P17-LT)

When reflecting on these role challenges, there was a sense of identity loss present for carers. Carers noted that they felt they could not be themselves within the relationship- or that who they were was not seen- due to the need to act as a 'carer'.

I can't be myself. I can't be me. I have to be what they want me to be (P2-ST)

I'm just that person, that caring person, enabling person (P3-ST)

Lastly, carers described difficulties in stepping back from their roles and focusing on their own needs as a person. The carer role was associated with meeting the needs of others and the balance of the carers own needs being met within this relationship was overlooked.

I don't feel like I've got opportunity to have a life for myself or my needs met (P4-ST)

It's a hard balance between 'he needs me' but then 'so does everyone else' (OR4-LT)

## **2.4 Discussion**

Mental health caregiving is unpredictable and episodic and frequently generates 'uncomfortable' thoughts and emotions in carers (Losada et al., 2015b). This is most clearly reflected in the interpersonal problem of emotion management, with our study highlighting the prevalence of anger, anxiety and 'upset' in mental health carer relationships. These findings are

consistent with that of previous literature- which indicates that carers experience these emotions, alongside a myriad of others such as resentment, isolation, fear, hopelessness, loss, guilt and denial (Albert & Simpson, 2015; Gray et al., 2009; Wynaden, 2007). In our findings, the impact of the carer role also had far-reaching implications for mental health carer's sense of self, with role challenges and identity conflict noted. This is also reflected in a large body of research on the intrapersonal impact of the carer role (Gray et al., 2009; Henderson, 2001; Hughes, Locock, & Ziebland, 2013).

In the face of a lifecontext that can raise such difficult emotions, it is understandable that carers may make attempts to avoid stimuli that could evoke such experiences. Our study highlights that mental health carers experience avoidance as a significant interpersonal problem within their relationships. It is established that carers experience moderate to high levels of avoidance (Ulstein, Wyller, & Engedal, 2008) with indications that avoidance is utilized as a means of coping (van Teijlingen Edwin & Lowit, 2005). Ironically, though intended as a means of reducing short term distress, avoidance has a negative impact on the long term coping of carers (Orsillo, Roemer, & Barlow, 2003). Avoidant processes in carers are associated with symptoms of anxiety (Ulstein et al., 2008), distress (Onwumere et al., 2011) and depression (Losada et al., 2015a). In the context of relationships, avoidant tendencies may result in a distancing of carers from their personal values (Orsillo et al., 2003); getting in the way of being the person they want to be in their caring relationship. There are established interventions for reducing experiential avoidance, though there remains a need to assess suitability for the mental health carer population. The progression of interventions in this area needs to identify which interpersonal experiences are being avoided (e.g., emotion management, aggression) in order to increase mental health carers capacity for those experiences. Furthermore, the impact of avoidance on interpersonal functioning needs to be considered- that is, does reducing avoidance correspond with an increase in the strength, quality, and functionality of the carer relationship?

Avoidance is often utilized when an individual perceives they lack control to effectively manage a situation, or misjudge which experiences are within their power to alter (Chawla & Ostafin, 2007; Hayes & Wilson, 1994). Consistent with our finding of control as an interpersonal problem, research has indicated that many carers perceive a lack of control in their lives and relationship with the care-receiver (Wilkinson & McAndrew, 2008; Williams, Dagnan, Rodgers, & Freeston, 2015). However, despite feeling like they lack control, carers often perceive themselves as holding responsibility for their loved one's (Harden, 2005; Hughes et al., 2013; Penning & Zheng, 2016). In our findings, control and responsibility presented as a continuum, at which interpersonal problems existed at either end. This mirrors contemporary interpersonal theory, which assumes interpersonal behaviors can be described along two principal dimensions: affiliation, which ranges from hostile behavior to friendly behavior; and control, which ranges from submissive behavior to dominating behavior (Alden et al., 1990; Horowitz et al., 2000). In our study, both ends of the 'control' dimension emerged (excesses and inhibitions of control and responsibility), whereas only the hostile end of the 'affiliation' dimension emerged (excesses of aggression).

The finding that mental health carers often experience high levels of hostility and aggression within their caring relationship is consistent with that of previous research indicating experiences of verbal abuse, destructive behavior, hitting or punching, harm to self or threats of suicide often need to be managed by carers (Reinares et al., 2006; Swan & Lavitt, 1988; Varghese, Khakha, & Chadda, 2016). Hostile and critical interactions are also characteristic of high expressed emotion; a widely researched experience within the caregiver population (Cherry, Taylor, Brown, Rigby, & Sellwood, 2017). The presence of aggression and hostility in carer relationships is associated with poorer relationships between carers and care-receivers (Spector et al., 2016; Spruytte, Van Audenhove, Lammertyn, & Storms, 2002) and higher burden and distress for carers (González-Blanch et al., 2010). There are suggestions that carers may minimize the aggression experienced within their relationship, due to conflicting

emotions of loyalty and betrayal (Albert & Simpson, 2015). The presence of aggression as an interpersonal problem for mental health carers, in the backdrop of the presence of avoidance, highlights the importance of considering mental health carer interpersonal problems in a holistic manner, rather than focusing on experiences in isolation. If the aim is for carers to manage difficult internal and external experiences (rather than avoid), this needs to occur in a contextually sensitive manner that targets the overall pattern of relating, and also keeps carers safe in the face of what can be very real threats to their wellbeing.

A relational context high in negative emotions and aggression does not provide an easy platform for healthy communication. Communication presented as an interpersonal problem in our findings, with carers noting there were difficulties in understanding each other, communicating needs and listening within the relationship. The mental health diagnosis of the care receiver would be a confounding factor here, with particular illnesses such as schizophrenia carrying with them more communication barriers (Bazin et al., 2005; Best & Bowie, 2013). Communication is essential to maintaining a person's health and wellbeing (Kyle, Melville, & Jones, 2010), and so the significance of supporting mental health carers to improve this interpersonal process is high.

The interpersonal problems that arose during this study overlap with other problems that have been identified amongst carers (e.g., expressed emotion) and there are a range of interventions to address these difficulties (e.g. Acceptance and Commitment Therapy for carer avoidance; Losada et al., 2015b). However, these specific relational difficulties are often considered in isolation, with the reduction of symptoms or problematic behaviors the goal of treatment rather than overall interpersonal functioning. This emphasizes the need for comprehensive evaluation of interpersonal problems in mental health carers using established measures such as the Inventory of Interpersonal Problems (Alden et al., 1990; Horowitz et al., 2000; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). Such evaluation has the potential to provide a direct connection between assessment, interpersonal theory and

intervention; allowing treatment to be tailored to a mental health carer's specific interpersonal problem profile. However, in light of suggestions that "change in [Australian carer] clinical practice will only occur if it is mandated by legislation, well grounded in policy and protocols" (McMahon, Hardy, & Carson, 2007, p.10), the need for evidence based treatment protocols and supporting policies is highlighted. Although Australian social policy has commenced recognizing the importance of carer relationships (Australian Department of Human Services, 2006; Carers Recognition Act, 2010), there is still little guidance provided as to the resources needed to support carers in this interpersonal role.

The current sample consisted of primarily female mental health carers with the majority caring for a family member, and thus cannot be seen to be representative of mental health carers as a whole. The sample contained a high representation of those caring for someone with perceived anxiety and depression, however the presence of multimorbidities complicates these distinctions further. The potential mediating influences of gender, care relationship to care-recipient, mental health diagnosis and duration of caregiving warrant further investigation, particularly for mental health carers who are providing care to more than one person. A strength of this study was the qualitative methodology, which allowed for the exploration of a topic area in which there has been little previous research. The combination of open narrative and semi-structured questions enabled rich data to be collected on mental health carers' interpersonal problems, and identified areas for further exploration. Future research could adopt a quantitative methodology utilizing standardized measures of interpersonal problems. A limitation of the chosen methodology is the reliance on the views of mental health carers only. Given suggestions that carers and care-receivers experience disparity in how they view their relationship (Manne et al., 2006), the current study could have been improved by involving both parties as active research participants.

## **CHAPTER THREE:**

# **STUDY TWO- Profiles of Interpersonal Problems in Mental Health Carers**

Aspects of this study have been submitted for publication (Appendix E)

Quinlan, E., Deane, F. P., Crowe, T. (2018b). Profiles of Interpersonal Problems in Mental Health Carers. *Manuscript submitted for publication.*

Please note: data collection for studies two and three occurred concurrently and thus the methods overlap. However, these studies have distinct research questions and the final sample size differs. Due to this, studies two and three will be presented separately.



### **3.1 Outline and aims**

Study 1 indicated that mental health caregivers experience interpersonal problems of emotion management, aggression, avoidance, responsibility, control, communication and role challenges in their relationship with the care-receiver. However, mental health carers' interpersonal problems have not yet been evaluated using established frameworks such as the interpersonal problems circumplex (Alden et al., 1990; Horowitz et al., 2000; Horowitz et al., 1988). Study 2 is a quantitative exploration of mental health carers' relationships from the perspective of the interpersonal circumplex.

Study 2 aims to clarify the severity of mental health carers' interpersonal problems. It does this by comparing the severity of overall and specific domains of interpersonal problems described by mental health carers with normative data from a community sample. Furthermore, Study 2 also sought to explore socio-demographic differences in mental health carers' experience of interpersonal problems. As outlined in Chapter 1, experiences of caregiving may shift over time with competing hypotheses regarding how the duration of time in the care role impacts caregiving. Due to the prevalence of Australian mental health carers who have been in their role longer term (i.e., greater than ten years), of particular interest in Study 2 is how interpersonal problems for such carers differ from those caring shorter term (i.e., less than ten years). In addition, Chapter 1 noted that the type of relationship between the carer and care-receiver impacts experiences of caregiving. As parents and spouses have been identified having particular risks to their wellbeing, Study 2 aims to explore differences in interpersonal problems experienced by these two subgroups.

Research questions included:

- 1) Is the severity of interpersonal problems present in mental health carers greater than that in a community sample?
- 2) Are specific domains of interpersonal problems more prevalent in mental health carers than in a community sample?
- 3) Is duration of caring (shorter term and longer term) associated with severity or domains of interpersonal problems in mental health carers?
- 4) Is relationship type (parent and spouse) associated with severity or domains of interpersonal problems in mental health carers?

## **3.2 Method**

### **3.2.1 Design and recruitment**

This study had a cross-sectional survey design and was approved by the University's Human Research Ethics Committee (Appendix F). Participants were mental health carers currently residing in Australia, with recruitment taking place during late 2015 to 2016. Data collection occurred through Australian-based mental health carer support agencies, who were contacted by email with a request to advertise the survey to their current clients. Advertising the study took place in the form of email invitations, website posting and/or flyers displayed in the office of the relevant mental health carer agency (Appendix G and H). Participants accessed the survey online via Questionpro.com and indicated consent by choosing to proceed through the Informed Consent page (Appendix I). Participants labelled each survey with a self-generated code (Appendix J), enabling datasets to be identified if carers chose to withdraw from the study. For all routes of data collection the participant information sheet presented the survey as "researching mental health carers' relationships and coping styles" in order to avoid bias due to those self-identifying as having interpersonal problems being more likely to participate.

### **3.2.2 Measures**

Interpersonal problems were assessed using the short form of the Inventory of Interpersonal Problems (IIP-32; Horowitz et al., 1988; Horowitz et al., 2000: Appendix K). The IIP-32 is a self-report instrument that identifies a person's most salient interpersonal difficulties. It contains 32 items that produce eight subscales; mapping onto the domains of the Interpersonal Circumplex. Items are divided into two sections: behaviors that are "hard for you to do" (e.g., "It is hard for me to show affection to people") and behaviors that "you do too much" (e.g., "I try to control other people too much"). Ratings of the degree to which each problem is distressing are made on a 5-point scale, ranging from Not at all (0) to Extremely (4). The IIP-32 provides a rating of a person's overall interpersonal distress, as well as that within specific domains of interpersonal functioning. Raw scores are converted to IIP-32 norms, based on a stratified (age by race/ethnicity by level of education distribution) random sample drawn from a US national survey of 400 females and 400 males (n = 800). A T-score of 50 represents the mean. A T-score of 60 reflects one standard deviation above the mean and indicates an above average score. A T-score of 70 reflects two standard deviations above the mean and suggests significant difficulty. The IIP has high internal reliability with Cronbach's alphas ranging from .68 (Intrusive/Needy) to .87 (Cold/Distant) for individual domains and Cronbach's alpha for total scales at .93 (Horowitz et al., 2000). Test retest reliability ranges from .57 to .82 (Horowitz et al., 2000). In the current sample internal consistency was high,  $\alpha=.93$ .

In addition, socio-demographic data were collected (Appendix L): 1) gender, 2) age bracket, 3) relationship to care-receiver (spouse, parent, sibling, child, other relative, friend or other), 4) duration of time in caregiving role, 5) the care-receivers' mental health condition, and 6) whether they consider the care-receiver to be in recovery (yes/no/not sure).

### **3.2.3 Analysis**

Initially T-scores for each of the IIP-32 domains and the IIP-32 total score were determined

according to published scoring algorithms (Horowitz et al., 2000). To examine differences in the severity and specific domains of interpersonal problems between mental health carers and a community sample, group differences on the mean IIP-32 total and domain scores were examined using nine independent samples t-tests. T-scores and p values were calculated using the online calculator <http://www.quantitativeskills.com/sisa/statistics/t-test.htm> and effect sizes for each comparison were calculated using <http://www.socscistatistics.com/effectsize/Default3.aspx> both accessed 26 April 2017. Information provided on the community sample consisted of means, with no access to the full data set eliminating further examination with non-parametric tests.

In light of Salzer et al. (2011)'s suggestion that measuring only the mean interpersonal problems of a population group neglects individual differences, further analysis was undertaken on the percentage of mental health carers experiencing high severity and particular configurations of the eight domains of interpersonal problems. We examined the proportion of mental health carers experiencing interpersonal problems of 'above average' difficulty ( $T \geq 60$ ) and interpersonal problems of 'significant difficulty' ( $T \geq 70$ ). These proportions were compared to those of the 800 participant standardized community sample (Horowitz et al., 2000).

To explore whether duration of caring (shorter term and longer term) was associated with severity or domains of interpersonal problems in mental health carers, we commenced by defining our groups. The variable 'duration of caring' was divided into two categories of relatively equal numbers: shorter term carers (defined as those caring for less than ten years) and longer term carers (defined as those caring for ten years or greater). Differences in interpersonal problems were assessed between shorter term and longer term carer group using nonparametric Mann-Whitney U given that some variables were skewed. We also calculated the proportions of shorter term and longer term mental health carers experiencing interpersonal problems of 'significant difficulty' ( $T \geq 70$ ). These proportions were examined using Chi-

square tests to assess for significant differences between the two groups.

To explore whether relationship type (parent and spouse) was associated with severity or domains of interpersonal problems in mental health carers, we commenced by defining our groups. We focused on parents and spouses with other relationship types not included due to small sample sizes. Differences between parents and spouse on the nine interpersonal problem variables (eight domains and overall severity) were assessed using nine Friedman's tests. We also calculated the proportions of parent and spouse mental health carers experiencing interpersonal problems of 'significant difficulty' ( $T \geq 70$ ). These proportions were examined using Chi-square tests to assess for significant differences between the two groups. Given the early stage of this research, statistical significance was set as  $p < 0.05$ . Statistical analyses were performed using the Statistical Package for the Social Sciences version 21 (SPSS: IBM Corp, 2012).

### 3.3 Results

#### 3.3.1 Demographic characteristics of sample

A total of 140 online questionnaires were obtained, of which 127 were complete. A total of 13 participants were not included due to missing data in the set of questionnaires. A total of 20 paper questionnaires were completed and all were accepted for the study. Table 2 provides the demographic characteristics of the 147 participants included in this study.

Table 2

*Demographic characteristics of sample*

Category	Frequency (%)
Sex	
Female	130 (88%)
Male	17 (12%)
Age	
18-26	2 (1%)
27-50	54 (37%)
51-74	85 (58%)
75+	6 (4%)

Relationship to care-receiver	
Spouse	30 (20.5%)
Parent	80 (54.5%)
Sibling	9 (6%)
Child	18 (12%)
Other relative	2 (1.5%)
Friend	3 (2%)
Foster carer	5 (3.5%)
Length of time caring	
1-3 years	19 (13%)
3-6years	22 (15%)
6-10 years	24 (16%)
10+ years	82 (56%)
Mental Health Condition of care-receiver (as identified by carer)	
Depression	53 (36%)
Bipolar	59 (40%)
Anxiety	53 (36%)
Post-Traumatic Stress Disorder	37 (25%)
Borderline Personality Disorder	47 (32%)
Other personality disorder	13 (9%)
Schizophrenia	42 (29%)
Substance Use Disorder	18 (12%)

---

*Note.* Total frequency of mental health conditions is greater than sample size (n=147) due to multiple diagnoses being able to be endorsed

### **3.3.2 The interpersonal profile of mental health carers**

Mental health carers displayed higher interpersonal problems than a community sample on 7 of 8 domains: vindictive/self-Centered, cold/distant, socially inhibited, non-assertive, overly accommodating, self-sacrificing and intrusive/needy. Mental health carers also displayed higher overall interpersonal problems than the community sample as indicated by the total IIP score. Table 3 and Figure 2 display the mean scores for mental health carers in comparison to the community sample. Caution is needed in interpreting these results due to mild to moderate skewness for some variables. Specifically, three of the IIP-32 domains were positively skewed;

domineering/controlling (skewness coefficient 1.40), vindictive/self-centered (skewness coefficient 1.45) and intrusive/needy (skewness coefficient 1.00).

Table 3

*Severity of Interpersonal problems (IIP-32) for mental health carers and a community sample*

Domain	Community mean <sup>a</sup> (n=60)	SD	Overall MHC mean (n=147)	SD	T-value	Cohen's d	Cronbach's alpha <sup>b</sup>
Domineering/Controlling	49.8	10.2	51.8	10.0	-1.29	0.20	.65
Vindictive/Self-Centered	49.0	10.2	52.2	11.3	-2.01*	0.30	.89
Cold/Distant	49.5	9.7	53.4	11.5	-2.51*	0.37	.88
Socially Inhibited	50.3	10.4	56.3	13.1	-3.47**	0.51	.90
Non-assertive	51.3	8.3	58.3	12.5	-4.67**	0.65	.89
Overly Accommodating	51.0	9.7	58.1	11.8	-4.49**	0.63	.74
Self-Sacrificing	50.2	10.1	59.6	11.8	-5.79**	0.86	.83
Intrusive/Needy	50.1	8.6	55.5	12.0	-3.63**	0.52	.74
Total IIP Score	50.2	10.0	58.2	11.5	-5.00**	0.74	.93

*Note.*

\*  $p < .05$ , \*\*  $p < .001$

<sup>a</sup> T-score norms from community sample for IIP-32 (Table 5.3, Horowitz et al., 2000)

<sup>b</sup> Derived from item level responses

IIP-32 (Inventory of Interpersonal Problems 32); MHC (Mental Health Carer



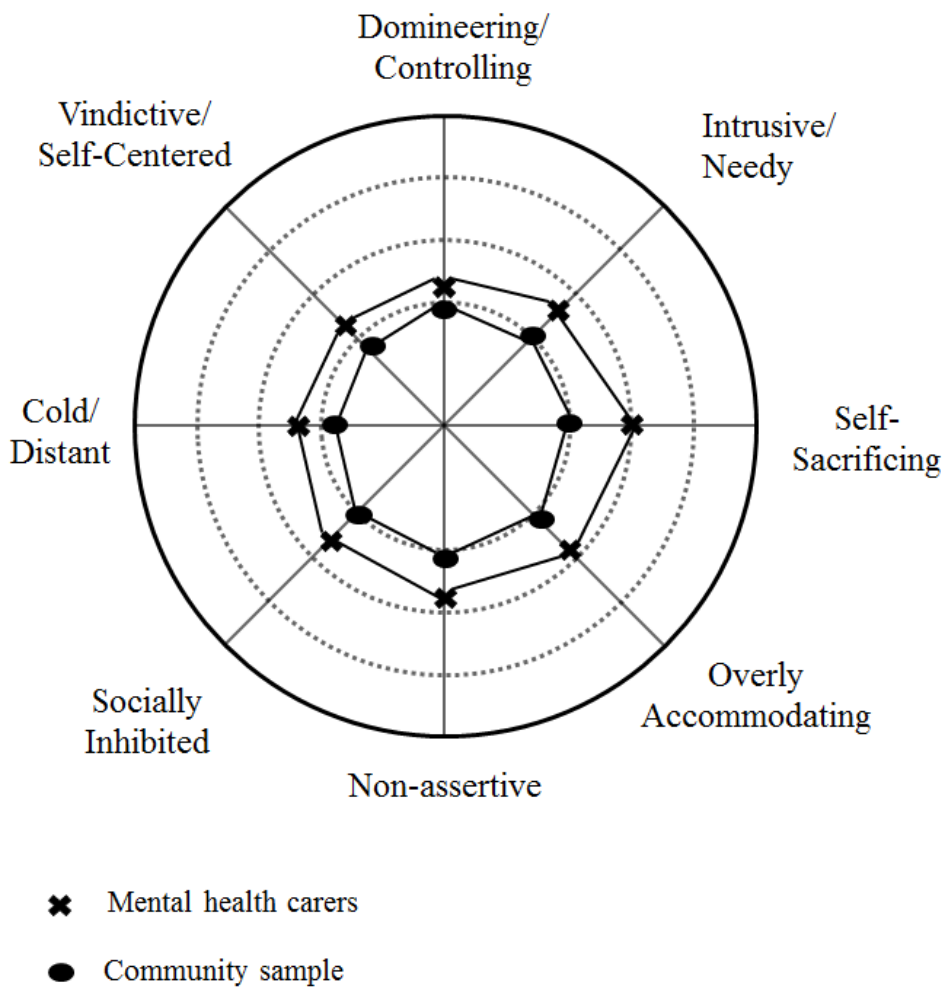


Figure 2. Severity of Interpersonal problems (IIP-32) for mental health carers (n = 147) and a community sample (n = 60)

The proportion of mental health carers experiencing interpersonal problems of above average difficulty ( $T \geq 60$ ) was greater than the community sample on the following domains: vindictive/self-centered, cold/distant, socially inhibited, non-assertive, overly accommodating, self-sacrificing, intrusive/needy, as well as the total IIP32 score. The proportion of mental health carers experiencing clinically significant interpersonal problems ( $T \geq 70$ ) was greater than community sample on all domains as well as the total IIP-32 score. Table 4 displays all proportions.

Table 4

*Proportions of Interpersonal problems of mental health carers (n=147) compared to community sample (n=800)*

Domain	Above Average Difficulty (T-score $\geq 60$ )		Significant difficulty (T-score $\geq 70$ )	
	Community	Mental health	Community	Mental
	sample	carers	sample	health carers
Domineering/Controlling	15.6%	14.3%	4.5%	5.4%
Vindictive/Self-Centered	15.5%	19.0%	6.1%	11.6%
Cold/Distant	18.1%	32.0%	5.7%	6.8%
Socially Inhibited	17.7%	36.7%	5.6%	15.6%
Non-assertive	17.7%	45.6%	4.6%	17.7%
Overly Accommodating	19.4%	49.0%	3.2%	21.1%
Self-Sacrificing	17.2%	52.4%	5.0%	19.7%
Intrusive/Needy	16.4%	26.5%	5.6%	12.2%
Total IIP Score	17.7%	43.5%	4.1%	17.7%

### 3.3.3 Interpersonal problems as a function of length of caring

Differences in interpersonal problems were assessed between shorter term and longer term carer group using nonparametric Mann-Whitney U given that some variables were skewed. A small but significant difference was found between groups for the vindictive/self-centered domain with longer term carers scoring higher than shorter term carers in this domain ( $Z = -2.52$ ,  $p = .012$ ).

The proportions of shorter term and longer term mental health carers experiencing significant interpersonal difficulty (T-score  $\geq 70$ ) are displayed in Table 5. The percentage of mental health carers experiencing significant interpersonal difficulty (T-score  $\geq 70$ ) was compared across the shorter and longer-term groups. Chi-square tests indicated that longer term carers had a significantly higher proportion of people experiencing significant interpersonal problems in the Vindictive/Self-centered domain than shorter term carers. A significantly higher proportion of shorter term carers were experiencing significant interpersonal problem in

the Overly Accommodating domain.

Table 5

*Proportions of significant interpersonal problems for shorter term (n = 65) and longer term (n = 82) mental health carer groups*

Domain	Shorter term		Longer term	
	N	%	N	%
Domineering/Controlling	4	6.2	4	4.9
Vindictive/Self-Centered <sup>a</sup>	3	4.6	14	17.1*
Cold/Distant	4	6.2	6	7.3
Socially Inhibited	9	13.8	14	17.1
Non-assertive	15	23.1	11	13.4
Overly Accommodating <sup>b</sup>	19	29.2*	12	14.6
Self-Sacrificing	8	12.3	21	25.6
Intrusive/Needy	6	9.2	12	14.6
Total IIP Score	10	16.7	16	19.5

*Note.*

\* $p < 0.05$ , 2-tailed

<sup>a</sup>  $X^2 (n = 147, df = 1) = 5.50, p = 0.02$  (Fishers Exact Test).

<sup>b</sup>  $X^2 (n = 147, df = 1) = 4.64, p = 0.03$

Figure 3 displays an example of an individual profile for one shorter term carer and one longer term carer in our sample. It is provided as an example of how profiles can vary between individuals.

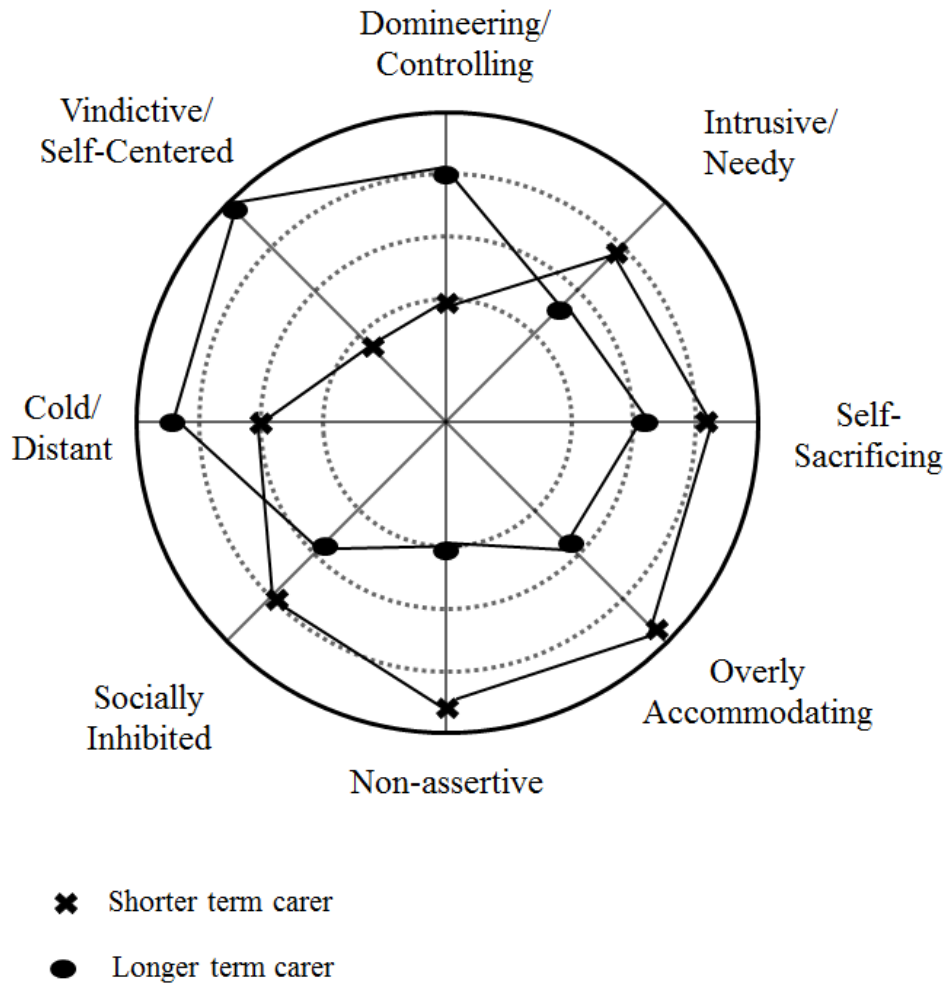


Figure 3. Individual data points for a shorter term carer vs longer term mental health carer

### 3.3.4 Interpersonal problems as a function of relationship type

Results of the nine Friedman's tests indicated no significant differences in interpersonal problem severity or specific domains between parents and spouses. An examination of proportions using Chi-square tests indicated no significant differences in the proportions between parents and spouse for any of the interpersonal problems domains or overall severity.

### 3.4 Discussion

Findings indicate that mental health carers experience significantly higher relational difficulties as compared to a community sample. The severity of interpersonal problems as well as seven of the eight domains were significantly higher for mental health carers compared to a

community sample. The proportions of mental health carers suffering from severe interpersonal problems were also higher. Approximately 3-6% of the non-clinical population obtained scores indicating significant difficulty with interpersonal problems (Horowitz et al., 2000). In our study, 17.7% of mental health carers obtained scores indicating significant difficulty. This finding has implications for the type of support needed by mental health carers. Community support for mental health carers most commonly takes the form of psychoeducation, support groups and counselling, and is designed in response to perceived caregiver burden (Savage, 2002). Our findings indicate that in the present sample, nearly one in five of mental health carers are in need of significant support for interpersonal problems- highlighting the need for interventions designed in response to interpersonal needs.

The two domains with the highest proportion of mental health carers experiencing significant difficulties were overly accommodating (21.1%) and self-sacrificing (19.7%). Thus, findings indicate these domains may be areas of particular vulnerability/risk for a notable proportion of mental health carers. The overly accommodating domain also held significance when considering duration of care. Shorter term carers scored higher on the overly accommodating domain, whereas longer term carers scored higher on the vindictive/self-centered domain.

The overly accommodating domain reflects an excess of friendly submissiveness; such individuals are reluctant to express anger or disagreement, are fearful of offending others, and are easily taken advantage of (Horowitz et al., 2000). The self-sacrificing domain reflects excesses of affiliation; such individuals find it hard to set boundaries and describe themselves as 'too trusting and permissive' (Horowitz et al., 1988; Horowitz et al., 2000). The vindictive/self-centered domain reflects an excess of hostile dominance; such individuals find it hard to feel empathy towards others or support others' goals and readily express anger (Horowitz et al., 2000).

Interventions for interpersonal problems are pluralistic and employ techniques

depending on the nature of the individual's interpersonal profile (Cain et al., 2010). The established framework of interpersonal problems provides treatment directions for each domain. Studies indicate that interpersonal problems related to the overly accommodating and self-sacrificing domains respond most favorably to skills training and graded exposure (Alden & Capreol, 1993). Interpersonal problems in the vindictive/self-centered domain respond most favorably to concrete, action orientated approaches such as behavioral therapy (Newman et al., 2017) with an emphasis on experiential participation and self-direction (Beutler et al., 1993). However, interpersonal problems in this area have been identified as the least amendable to change and have also been associated with poorer therapeutic alliance and outcomes (Cain et al., 2010; Horowitz et al., 1993; Renner et al., 2012). On a positive note, research has consistently indicated that individuals with interpersonal problems related to being 'overly accommodating' experience the most gains from psychotherapy (Cain et al., 2010; Horowitz et al., 1993; Locke et al., 2017) and find it easier to form a positive therapeutic alliance (Puschner, Bauer, Horowitz, & Kordy, 2005; Renner et al., 2012). This suggests that the domain that is problematic for the largest proportion of mental health carers is likely to be amendable to change.

Findings from the current study suggest that interventions for shorter term carers may best incorporate support for overly accommodating behaviors, whereas support for longer term carers may require a focus on vindictive/self-centered behaviors. For those carers experiencing significant interpersonal problems, individualized assessment would allow for such treatment to be tailored to a mental health carer's unique profile. For example, the shorter term carer who is overly accommodating in Figure 3 might benefit from skills training particularly around assertiveness, and may be a suitable candidate for group therapy due their ability to form positive alliances. The longer term carer who is high on interpersonal problems in the vindictive/self-centered domain might benefit from individual behavioral therapy focused on anger management and social connectedness.

Overall, whilst two of the eight domains showed variation according to duration of caregiving, the majority of interpersonal problem domains were of equivalent severity regardless of time in the caring role. This result is consistent with the trait hypothesis of caregiving which argues that pre-existing coping skills and resources enable carers to maintain a consistent level of adaptation over time. When considering relationship type, our findings did not indicate any significant differences in the severity or type of interpersonal problems experienced by parent mental health carers as opposed to spouses. In light of prior research indicating the comparatively low wellbeing of parent mental health carers (Hammond et al., 2014), our findings suggest that the unique strain of specific roles may not be related to the severity of interpersonal problems or types of interpersonal problems experienced.

The findings provide some insight into the types of interpersonal problems experienced by mental health carers and different foci of these problems for those with shorter versus longer term caring duration. Whilst this data considered mental health carer interpersonal problems on a normative level, one of the strengths of the interpersonal circumplex approach lies with its ability to provide an individualized profile. Individualized assessment allows for an understanding of a mental health carers specific interpersonal pattern and domains of risk. The standardized and validated, Inventory of Interpersonal Problems provides a link between assessment, theory and intervention allowing the identification of treatment directions relevant for a particular individual's profile.

There are several limitations to our study that should be noted. The sample size cannot be seen to represent all mental health carers and due to the survey method we are unable to clearly determine the representativeness of the sample. As recruitment occurred through carer support agencies, it is possible that our sample over-represents treatment seekers who may display higher distress than those mental health carers not familiar to support agencies. Our sample was comprised of a high proportion (88%) of female mental health carers as is common for mental health carers (e.g., 84% female: Broady & Stone, 2015) and Australian carers more

generally (e.g., 85% female: Hussain et al., 2016). However, the effect of gender needs to be considered. Although the IIP-32 converts scores into standardized T-scores based on gender norms, particular domains have been indicated as more frequently occurring in women, such as the Self-Sacrificing domain (Horowitz et al., 2000).

A further limitation was the categorical nature of our duration of caring data, limiting us from running correlation analysis between duration of caring and interpersonal problem domains. Current findings do not provide guidance as to the duration of caregiving before differences in the Overly Accommodating domain or Vindictive/Self-Centered domain emerge. Although a 10 year cut off was chosen in part because approximately 50% of all Australian carers had been in their role for 10 years or more (Australian Bureau of Statistics, 2012), this cut-off is still somewhat arbitrary. In the present study it allowed approximately equal numbers of carers in each group, but other duration categories should be considered in future research that involves larger samples.



**CHAPTER FOUR:**

**THE ROLE OF EXPERIENTIAL  
AVOIDANCE, ATTACHMENT ANXIETY  
AND HOSTILITY**

## **4.1 Introduction**

Study 2 provided insight into the types and severity of interpersonal problems experienced by mental health carers. The percentage of mental health carers experiencing ‘significant difficulty’ in their relationships was 17.7%, where we would normally expect 3-6% of the general population to score in this range. Furthermore, mental health carers experience particular struggles with being overly accommodating and self-sacrificing in their relationships. What remains unknown is the mechanisms underlying mental health carers’ interpersonal problems. This is especially significant in light of criticisms that work in the caregiving field often lacks data on underlying psychological processes (Devereux, Hastings, & Noone, 2009; Noone & Hastings, 2011). There is a need to understand the psychological processes that explain or mediate the impact of interpersonal problems on mental health carers’ lives.

## **4.2 Experiential avoidance**

Several theories of interpersonal problems point to the role of avoidance in contributing to, or perpetuating, dysfunction. Interpersonal theory posits that rigid attempts to avoid distress in social situations contribute to interpersonal problems (Sullivan, 1953). Motivational approaches view interpersonal problems as a consequence of strong avoidance directed goals, which in turn lead to decreased satisfaction of a person's approach directed goals (Holtforth, 2008; Holtforth et al., 2006). Attachment theory describes a number of dysfunctional attachment styles that may contribute to interpersonal problems; one of which is the avoidant style (Inge, 1992). It has been suggested that “experiential avoidance may provide a broad umbrella for conceptualizing the avoidant functions of problematic interpersonal behaviors” (Gerhart, Baker, Hoerger, & Ronan, 2014, p. 292)

Experiential avoidance has been defined as a person’s tendency to be “unwilling to remain in contact with particular private experiences and take steps to alter the form or frequency of these events” (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996, p. 1154).

Examples may include not having an important conversation with a loved one due to feelings of anxiety, or avoiding a particular place due to thoughts that something bad may happen. In the context of mental health caregiving, there are many interpersonal circumstances where such aversive private experiences may be triggered. Common internal experiences for lay mental health carers may include painful thoughts and difficult emotions such as guilt, shame, stigmatization and social isolation. External stressors that characterize the role may include the care-receiver's diagnosis, navigating the mental health system, managing the care-receiver's problematic and unpredictable behavior, or dealing with changes in the nature of the relationship with the advent of mental illness. Experiential avoidance can benefit mental health carers in the short term by decreasing distress and there are suggestions it reflects a controlling manoeuvre enabling the carer to deal with the situation (Lazarus & Folkman, 1984; Ulstein et al., 2008). In particular situations experiential avoidance can be adaptive. For example, listening to feelings of anxiety and not having an important conversation may be adaptive in cases where the care-receiver is in a fragile or high-risk state. However, experiential avoidance has the potential to become problematic when utilized rigidly and without regard to situational appropriateness (Schmalz & Murrell, 2010).

Experiential avoidance is associated with a host of negative outcomes, such as depression and anxiety (Hayes et al., 2006; Kashdan et al., 2014), poor physical health (Lillis, Levin, & Hayes, 2011), maladaptive coping strategies (Chawla & Ostafin, 2007) and dysfunctional cognitions (Cristea, Montgomery, Szamoskozi, & David, 2013). Research within the broad carer field has indicated lay carers experience moderate to high levels of avoidance (Ulstein et al., 2008), and these avoidance processes are associated with symptoms of anxiety (Cooper, Katona, Orrell, & Livingston, 2006), distress (Ulstein et al., 2008) and depression (Losada et al., 2015a). Research specific to lay mental health carers has acknowledged the presence of avoidant behaviors (Kartalova-O'Doherty & Doherty, 2008; Mackay & Pakenham, 2012), however such studies have not included the broader experiential avoidance framework,

which encompasses internal stimuli.

### **4.3 Experiential avoidance and interpersonal problems**

Despite the strong theoretical justification for the role of experiential avoidance in carer's interpersonal problems, no empirical study has examined the relationship between interpersonal problems and experiential avoidance in the mental health carer population. However, this relationship has been empirically studied in a non-clinical population, in recent work by Gerhart et al. (2014). The authors proposed that negative perceptions and expectations of relationships play a mediating role in the relationship between interpersonal problems and experiential avoidance (Gerhart et al., 2014). Negative perceptions and expectations of relationships are strongly held beliefs about self and others that contribute to rigid and patterned interpersonal behavior (Downey, Freitas, Michaelis, & Khouri, 1998). Negative, excessive and/or unrealistic expectations of relationships can evolve when individuals hold inflexible rules about how relationships are "supposed" to be. They also involve strong judgements about people and their interactions with them (e.g., you are inconsiderate). Gerhart et al. (2014) argued that experiential avoidance holds temporal precedence in predicting negative perceptions and expectations in the form of attachment anxiety and hostility, and in turn, these perceptions are associated with interpersonal problems. The authors tested the applicability of this model using a cross-sectional survey with participants comprising 159 university students. Results indicated attachment anxiety mediated the relationship between experiential avoidance and interpersonal problems involving coldness and social avoidance, and hostility mediated the relationship between experiential avoidance and interpersonal problems involving dominance and vindictiveness (Gerhart et al., 2014). However, only four of the eight interpersonal problem domains were included in this study, leaving the applicability of this mediation framework to the remaining four domains (i.e., non-assertive, overly accommodating, self-sacrificing and intrusive/needy) unclear.

Gerhart et al.'s mediation model (2014) fits with our understanding of the impact of experiential avoidance, attachment anxiety and hostility on relationships. Experiential avoidance is known to have a detrimental impact on cognitions regarding self and others (Cristea et al., 2013) and is associated with increased tension, conflict and inhibited intimacy in relationships (Reddy, Meis, Erbes, Polusny, & Compton, 2011). Attachment anxiety has been linked to increased conflict and reduced disclosure within relationships (Bradford, Feeney, & Campbell, 2002; Campbell, Simpson, Boldry, & Kashy, 2005), as well as reduced likelihood of support and reduced frequency of helping behavior (Carnelley, Pietromonaco, & Jaffe, 1996). Hostility has a negative impact on relationships, through increased interpersonal rejection (Dodge & Coie, 1987; Karasawa, 2003) and maladaptive interpersonal cognitions (Scott, Ingram, & Shadel, 2003). Moreover, these processes have significance for the broader carer population. Studies show that carer attachment is associated with experiences of burden (Carpenter, 2001), anxiety (Cooper, Owens, Katona, & Livingston, 2008), psychological morbidity (Crispi, Schiaffino, & Berman, 1997), and psychological health (Nelis et al., 2012). Research on hostility in carers has primarily occurred in the framework of expressed emotion (a critical, hostile or controlling style of behavior) and indicates high levels of criticism are common in carer family environments (Bailey & Grenyer, 2015); and expressed emotion is linked with higher burden and distress for carers (González-Blanch et al., 2010).

Gerhart et al.'s (2014) conceptual model of interpersonal problems may have applicability to the mental health lay carer population. Caregiving for someone with mental illness is associated with difficult experiences (Losada et al., 2015b), and high use of experiential avoidance as a means of coping (Chawla & Ostafin, 2007). According to Gerhart et al.'s (2014) model, the more a caregiver avoids thoughts, feelings and sensations related to the person they are caring for, the more anxious they become about the attachment (or alternatively, the more hostile they become). This attachment anxiety and/or hostility shapes the way the mental health carer behaves in their relationships, with rigid and excessive use of

behavior resulting in expression of interpersonal problem domains. However, it is important to note that Gerhart et al. (2014) did not test for alternative mediation relationships, leaving open the possibility that mental health carers' experiences of interpersonal problems, experiential avoidance, attachment anxiety and hostility may be connected in alternative ways.

Considering experiential avoidance has been posed as a mediator for various psychological processes associated with caregiver distress (Romero-Moreno, Losada, Márquez-González, & Mausbach, 2016; Spira et al., 2007), there is an alternative explanation for its role in interpersonal problems. Specifically, that the relationship between attachment anxiety and/or hostility with interpersonal problems is mediated by experiential avoidance. This explanation suggests that the more mental health carers experience attachment anxiety and hostility, the more they begin to avoid thoughts, feelings and sensations associated with the care-receiver. Such experiential avoidance limits use of flexible behavior, resulting in stronger expression in interpersonal problem domains. This model is more consistent with views that experiential avoidance might be best conceived as a process rather than an independent trait in the context of the relationship between experiential avoidance and attachment anxiety (Vaughan-Johnston, Quickert, & MacDonald, 2017).

In sum, experiential avoidance has been identified as playing a role in contributing to or maintaining interpersonal problems. Research on the relationship between experiential avoidance and interpersonal problems has highlighted the mediating role of attachment anxiety and hostility (Gerhart et al., 2014). However, these associations are specific to the domineering/controlling, vindictive/self-centred, cold/distant and socially inhibited domains with applicability to the remaining four interpersonal problem domains unclear. To date, no empirical study has examined the relationship between experiential avoidance, interpersonal problems, attachment anxiety and hostility specific to the mental health carer population.

## CHAPTER FIVE:

### **STUDY THREE-** Do attachment anxiety and hostility mediate the relationship between experiential avoidance and interpersonal problems in mental health carers?

Aspects of this study have been accepted for publication (see Appendix M)

Quinlan, E., Deane, F. P., Crowe, T., & Caputi, P. (2018). Do attachment anxiety and hostility mediate the relationship between experiential avoidance and interpersonal problems in mental health carers? *Journal of Contextual Behavioral Science*.  
<https://doi.org/10.1016/j.jcbs.2018.01.003>

## **5.1 Outline and aims**

In response to calls for more research on the cognitive processes associated with interpersonal problems (Gerhart et al., 2014), Study 3 aims to explore the relationships between experiential avoidance and interpersonal problems. Specifically, whether experiential avoidance explains attachment anxiety and hostility, that in turn contributes to common interpersonal problem domains. An additional aim is to explore the possibility of an alternative (reverse) mediational model, in which the relationship between attachment anxiety or hostility and interpersonal problems is mediated by experiential avoidance (outlined in Chapter 4).

This study replicates and extends Gerhart et al. (2014) using a mental health carer sample; introducing an experiential avoidance measure specific to our study population; including all eight interpersonal domains in a mediation framework; and testing an alternative (reverse) mediation model.

## **5.2 Method**

### **5.2.1 Design and recruitment**

The design and recruitment was the same as described in Study 2 at 3.2.1.

### **5.2.2 Measures**

Interpersonal problems were assessed using the short form of the Inventory of Interpersonal Problems (Horowitz et al., 1988; Horowitz et al., 2000). This is the same measure described in Study 2, see 3.2.2 for full description. In the current sample internal consistency was excellent,  $\alpha=.93$ .

Experiential avoidance was assessed using the Brief Experiential Avoidance Questionnaire (BEAQ: Appendix N), a 15 item scale developed to assess experiential avoidance of painful emotions and uncomfortable situations (Gámez et al., 2014). It is based on the 62-item Multidimensional Experiential Avoidance Questionnaire (MEAQ), both of which tap into content from six dimensions: behavioral avoidance, distress aversion, procrastination,



distraction and suppression, repression and denial, and distress endurance (Gámez et al., 2014; Gámez, Chmielewski, Kotov, Ruggero, & Watson, 2011). The BEAQ assesses experiential avoidance as a general process: with no time frame specified. Participants rate their agreement with items on a 1 (strongly disagree) to 6 (strongly agree) scale. Example items include ‘the key to a good life is never feeling any pain’ and ‘I won’t do something until I absolutely have to’. Responses are summed with higher values indicating more experiential avoidance. The BEAQ demonstrates good internal consistency and strong convergence with respect to each of the MEAQ’s 6 dimensions (Gámez et al., 2014). In the current sample internal consistency was good,  $\alpha = .86$ .

Caregiving avoidance was assessed using the Experiential Avoidance in Caregiving Questionnaire (EACQ: Losada, Márquez-González, Romero-Moreno, & López, 2014: Appendix O). The EACQ measures experiential avoidance of emotions, thoughts and sensations regarding caregiving, containing 15 items it is the first specific measure of experiential avoidance in the caregiving context. Participants rate how much each item applies to them on a scale of 1 (not at all) to 5 (a lot). Example items include ‘One should not feel rejection or other unpleasant emotions about the person you are caring for’ and ‘It is normal for a caregiver to have negative thoughts about the person they are caring for’ (reverse scored). Responses are summed with higher values associated with more experiential avoidance. The EACQ shows acceptable psychometric properties (Losada et al., 2014). In the current sample internal consistency was marginal,  $\alpha=.68$  but consistent with the internal consistency reported by Losada et al. ( $\alpha=.70$ ) (2014).

Attachment Anxiety was assessed using the Relational Anxiety subscale of the Relationship Awareness Scale (RAS: Snell, 1998: Appendix P). The RAS is a 30-item measure that evaluates three cognitive tendencies associated with relationships: relational consciousness, relational monitoring and relational anxiety. The Relational Anxiety subscale contains 9 items, and assesses tension, discomfort and awkwardness in close relationships.

Participants rate their agreement with items on a 1 (not at all characteristic of me) to 5 (very characteristic of me) scale. Example items include ‘Intimate relationships make me feel nervous and anxious’ and ‘I am somewhat awkward and tense in close relationships.’ Responses are summed with higher values indicating more attachment anxiety. The RAS relational anxiety subscale is associated with adequate internal reliability (Snell Jr, 1998). In the current sample internal consistency was excellent,  $\alpha=.97$ .

Hostility was assessed using the Hostility subscale of the Aggression-Questionnaire (AQ; Buss & Perry, 1992: Appendix Q). The AQ is a 29 item measure that evaluates four dimensions of aggression: anger, verbal aggression, physical aggression, and hostility. The hostility subscale contains 8 items and assesses cognitive components of anger. Participants rate their agreement with items on a scale from 1 (not at all true) to 5 (completely true). Example items include ‘At times I feel I have gotten a raw deal out of life’ and ‘When people are especially nice, I wonder what they want’. Responses are summed with higher values associated with more hostility. The AQ is associated with adequate reliability and validity (Bernstein & Gesn, 1997; Harris, 1997). In the current sample internal consistency was good,  $\alpha=.83$ . In addition, socio-demographic data were collected. Questions followed those described in Study 2, see 3.2.2 for full description.

### **5.2.3 Analysis**

Initially descriptive analyses and Pearson’s correlations of the scale factors were conducted. A mediation model in which attachment anxiety and hostility were proposed as mediators of the relationship between experiential avoidance and interpersonal problem domains was tested. Testing for mediation required multiple paths to be tested. In our model, we tested the effects of experiential avoidance (the independent variable) on attachment anxiety and hostility (the mediators); the effect of attachment anxiety and hostility (the mediators) on the relevant interpersonal problem domain (the dependent variable), and the total effect of the experiential avoidance (the independent variable) on the relevant interpersonal problem domain (the

dependent variable). Lastly, the indirect effect of experiential avoidance on each interpersonal problem domain through attachment anxiety and hostility was calculated. According to Baron and Kenny (1986), if the association between the experiential avoidance and interpersonal problems is no longer significant after controlling for attachment anxiety and hostility, full mediation can be seen to be present; if the relationship diminishes but remains statistically significant, partial mediation can be seen to be present.

All eight interpersonal problem domains were modelled as independent variables, and thus eight mediation models were analyzed. Mediation was performed using the PROCESS method for SPSS script developed by Hayes (2013), with 5000 bootstrap samples (Preacher & Hayes, 2008). The BEAQ was used as our measure of experiential avoidance due to its stronger psychometric properties, and included the following covariates in our analysis: gender (male/female), duration of caregiving relationship to care-receiver (six categories, ranging from less than 6 months to greater than 10 years) and whether the carer perceived the care-receiver to be in recovery (yes/no/not sure). Statistical significance was set at  $p < .05$  and a 95% CI was utilized for indirect effects. In order to test for robustness of results, all mediation models were repeated utilizing our measure of caregiving avoidance (EACQ) in place of the BEAQ. To examine the alternative (reverse) model, we replicated our analysis but with experiential avoidance positioned as the mediator. In order to pose attachment anxiety and hostility as the independent variables, two separate models were computed for each interpersonal problem domain, thus sixteen alternative models were analyzed.

## **5.3 Results**

### **5.3.1 Demographic characteristics of sample**

One hundred and forty five participants provided informed consent and completed the study. Most participants (approximately 76%) were caring for a family member; consisting of parents (52%), siblings (7%) adult children (14%) and other relatives (3%). The remaining sample

consisted of spouses (22%) and friends (2%). Most participants were women (88%) and aged over 50 years (60.5%). Just over half (55%) of participants were long term carers, having cared for the care receiver for over 10 years. Mental health carers identified their care-recipient as experiencing mood disorders (depression 36% and bipolar 40%), anxiety disorders (general anxiety 35% and post-traumatic stress disorder 25%), personality disorders (borderline personality disorder 32% and other 9%), schizophrenia (29%) and substance-induced disorders (12%). Note that multiple diagnoses were able to be endorsed. The percentage of participants that identified their care-receiver as in recovery was relatively evenly distributed, with 35% responding 'yes', 39% 'no' and 27% indicating they were not sure.

### **5.3.2 Descriptive statistics and Pearson correlations**

Descriptive statistics and Pearson correlations of the scales are reported in Table 6.

Table 6

*Descriptive statistics and correlations (N = 145)*

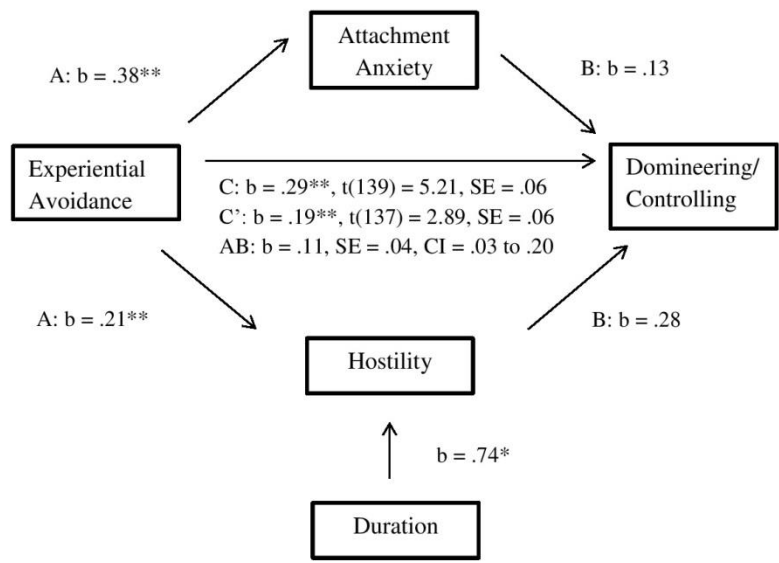
Variable	Mean	SD	Range	2	3	4	5	6	7	8	9	10	11
1a Experiential avoidance	45.4	13.8	18-84	.47**	.48**	.38**	.34**	.42**	.38**	.45**	.49**	.44**	.25**
1b Caregiving avoidance	37.4	7.6	21-58	.34**	.43**	.28**	.35**	.36**	.42**	.38**	.27**	.21**	.46**
2 Attachment anxiety	20.6	11.1	9-45			.36**	.22**	.54**	.54**	.58**	.49**	.32**	.32**
3 Hostility	15.0	6.1	8-36			.36**	.32**	.52**	.51**	.45**	.45**	.38**	.38**
Interpersonal problems													
4 Domineering/Controlling	52.0	9.9	41-90				.18*	.27**	.28**	.33**	.46**	.57**	.50**
5 Vindictive/Self-Centered	52.6	11.6	41-92					.61**	.24**	.23**	.23**	.16	.26**
6 Cold/Distant	54.0	11.3	42-89						.59**	.45**	.44**	.24**	.35**
7 Socially Inhibited	56.3	13.6	40-88							.57**	.56**	.38**	.31**
8 Non-assertive	57.5	12.6	38-83								.80**	.42**	.39**
9 Overly Accommodating	57.8	12.0	35-86									.57**	.50**
10 Self-Sacrificing	59.6	11.6	36-83										.47**
11 Intrusive/Needy	55.7	12.2	40-93										

*Note.*\*  $p < .05$  (2 tailed)\*\*  $p < .01$  (2 tailed)

Experiential avoidance and caregiving avoidance were both significantly associated with the mediating variables, including attachment anxiety and hostility, and with the dependent variables of interpersonal problem domains. The interpersonal problem domains were all greater than the expected mean (i.e., 50), indicating our mental health lay carer sample experienced these problems to a greater degree than the general population. Each interpersonal problem domain displayed significant correlations with experiential avoidance, attachment anxiety and hostility (range  $r = .21$  to  $r = .58$ ).

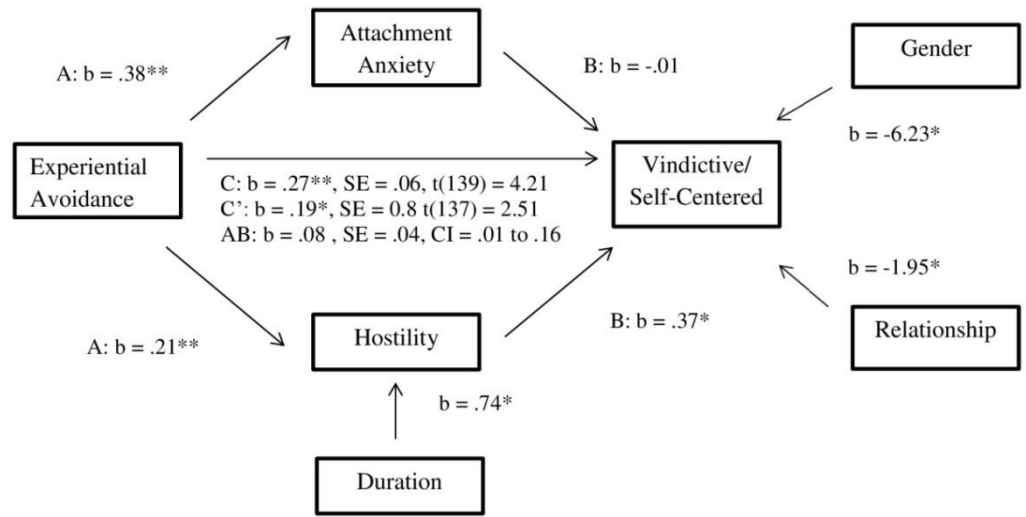
### **5.3.3 Mediation models**

Mediation results indicate that the independent variable, experiential avoidance, consistently predicts attachment anxiety and hostility (the mediators). Hostility was associated with the duration of caregiving, but not gender, relationship to care-receiver or recovery status. Attachment anxiety was not associated with any covariates. Associations between all variables and the eight interpersonal problem domains are illustrated in Figures 4 through 11. In what follows, only significant covariates are represented in the figures.



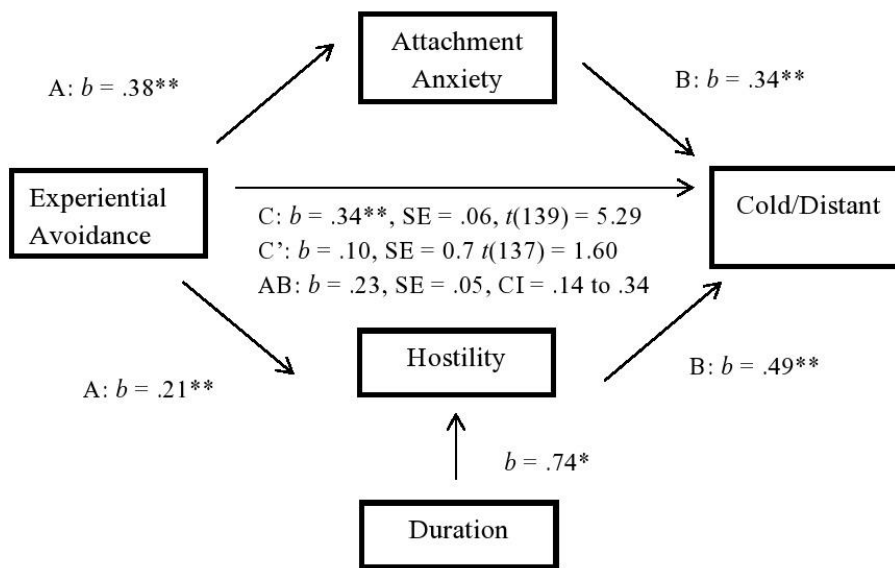
Note. \* $p < .05$ , \*\* $p < .01$

Figure 4. Mediation of experiential avoidance and domineering/controlling interpersonal problems by attachment anxiety and hostility



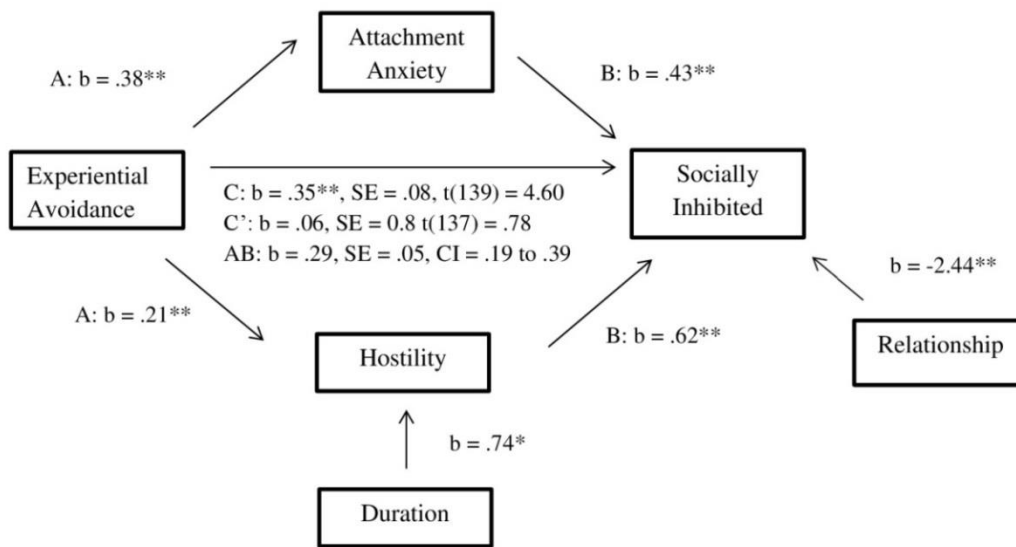
Note. \* $p < .05$ , \*\* $p < .01$

Figure 5. Mediation of experiential avoidance and vindictive/self-centered interpersonal problems by attachment anxiety and hostility



Note.  $*p < .05$ ,  $**p < .01$

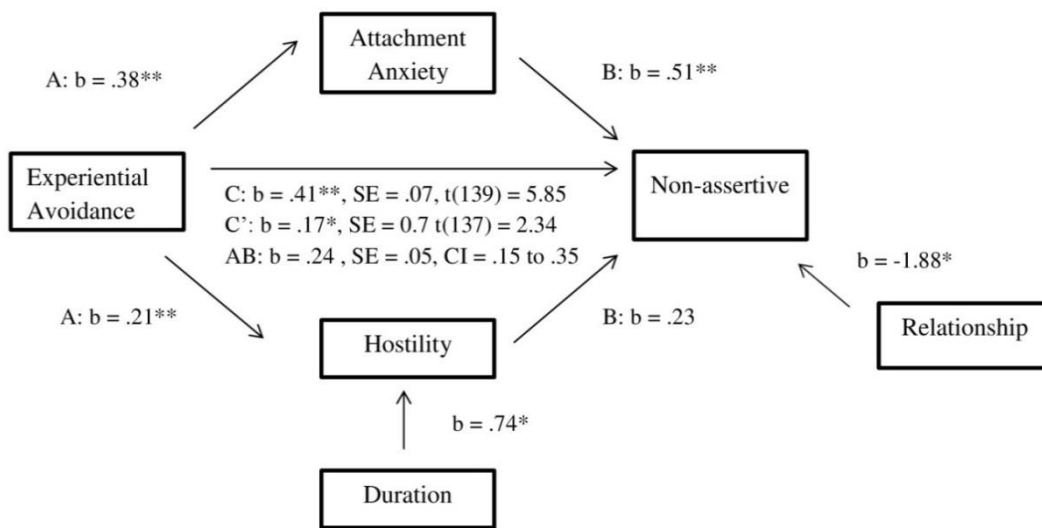
Figure 6. Mediation of experiential avoidance and cold/distant interpersonal problems by attachment anxiety and hostility



Note.  $*p < .05$ ,  $**p < .01$

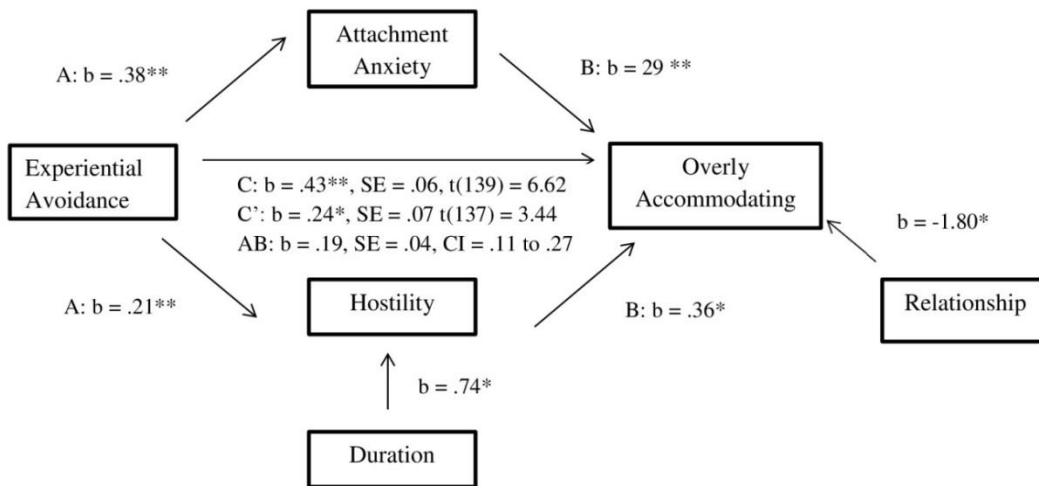
Figure 7. Mediation of experiential avoidance and socially inhibited interpersonal problems by attachment anxiety and hostility





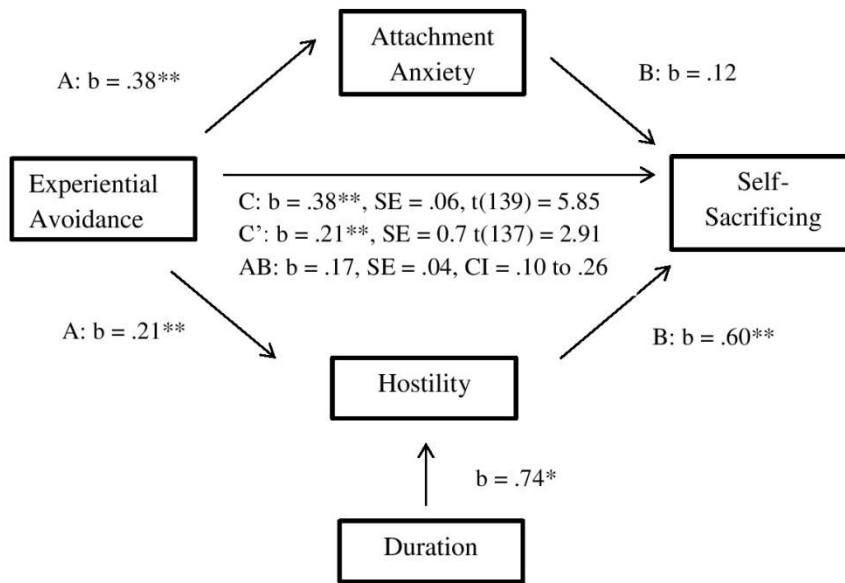
Note. \* $p < .05$ , \*\* $p < .01$

Figure 8. Mediation of experiential avoidance and non-assertive interpersonal problems by attachment anxiety and hostility



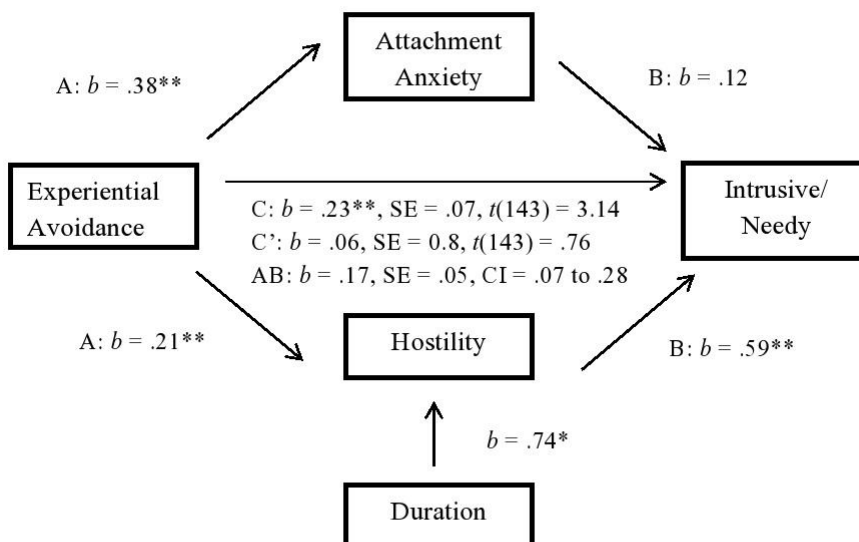
Note. \* $p < .05$ , \*\* $p < .01$

Figure 9. Mediation of experiential avoidance and overly accommodating interpersonal problems by attachment anxiety and hostility



Note.  $*p < .05$ ,  $**p < .01$

Figure 10. Mediation of experiential avoidance and self-sacrificing interpersonal problems by attachment anxiety and hostility



Note.  $*p < .05$ ,  $**p < .01$

Figure 11. Mediation of experiential avoidance and intrusive/needy interpersonal problems by attachment anxiety and hostility

The relationship between experiential avoidance and interpersonal problems was

fully mediated for the interpersonal problem domains of cold/distant and socially inhibited. For these domains, attachment anxiety and hostility simultaneously predicted interpersonal problems, with a stronger effect present for hostility. The overly accommodating domain was predicted by attachment anxiety and hostility to a similar degree, however, only partial mediation was present. These three domains (i.e., cold/distant, socially inhibited and overly accommodating) all displayed associations with the covariate relationship type.

Four other interpersonal problem domains were predicted by only one mediator. The vindictive/self-centered, self-sacrificing and intrusive/needy domains displayed partial mediation through hostility. Vindictive/self-centered interpersonal problems were associated with relationship type and gender, whilst self-sacrificing and intrusive/needy problems were not associated with any covariates. The non-assertive domain displayed partial mediation through attachment anxiety, and was associated with relationship type. The last interpersonal problem domain- domineering/controlling- displayed no mediation through attachment anxiety or hostility, nor any associations with covariates. All analyses were repeated with the measure of caregiving avoidance replacing experiential avoidance. The results of this indicated that all significant effects (i.e., full mediation and partial mediation) remained consistent.

#### **5.3.4 Alternative (reverse) models**

We tested alternative (reverse) models for each interpersonal problem domain, in which experiential avoidance served as the mediator and attachment anxiety and hostility served as independent variables. The reverse model indicated mediation to be present for three of the eight interpersonal problem domains. The overly accommodating domain displayed partial mediation through hostility (C:  $b = .53^{**}$ , C':  $b = .37^{**}$  for attachment anxiety; C:  $b = .89^{**}$ , C':  $b = .55^*$  for hostility)- in contrast, our original analysis displayed partial mediation through hostility and attachment anxiety. The

domineering/controlling domain displayed partial mediation through both attachment anxiety and hostility (C:  $b = .32^{**}$ , C':  $b = .21^*$  for attachment anxiety; C:  $b = .57^{**}$ , C':  $b = .36^*$  for hostility), in contrast, our original analysis indicated no mediation. The vindictive/self-centered domain displayed full mediation through attachment anxiety and partial mediation through hostility (C:  $b = .23^*$ , C':  $b = .08$  for attachment anxiety; C:  $b = .62^{**}$ , C':  $b = .40^*$  for hostility). Our original mediation analysis indicated partial mediation for hostility.

The reverse model indicated no mediation was present for the remaining five interpersonal problem domains. These include cold/distant (C:  $b = .55^{**}$ , C':  $b = .44^{**}$  for attachment anxiety; C:  $b = .96^{**}$ , C':  $b = .76^{**}$  for hostility), socially inhibited (C:  $b = .66^{**}$ , C':  $b = .57^{**}$  for attachment anxiety; C:  $b = 1.14^{**}$ , C':  $b = .95^{**}$  for hostility), non-assertive (C:  $b = .92^{**}$ , C':  $b = .62^{**}$  for attachment anxiety; C:  $b = .67^{**}$ , C':  $b = .55^{**}$  for hostility), self-sacrificing (C:  $b = .43^{**}$ , C':  $b = .28^{**}$  for attachment anxiety; C:  $b = .95^{**}$ , C':  $b = .71^{**}$  for hostility) and intrusive/needy (C:  $b = .35^{**}$ , C':  $b = .28^{**}$  for attachment anxiety; C:  $b = .75^{**}$ , C':  $b = .67^{**}$  for hostility). In contrast, the original mediation analysis described above indicated these domains were all partially or fully mediated. Figures 13-20 representing the findings of the reverse analysis can be found in Appendix R.

#### **5.4 Discussion**

We tested two mediation models examining potential mediating relationships between experiential avoidance, attachment anxiety, hostility and interpersonal problems. In testing the original model that aimed to replicate and extend findings of Gerhart et al. (2014) it was found that for seven of eight interpersonal problem domains attachment anxiety and hostility partially or fully mediated the relationship between experiential avoidance and interpersonal problems. The results revealed that experiential avoidance consistently predict negative expectations and perceptions of others in the

form of attachment anxiety and hostility, consistent with our understanding of the impact of experiential avoidance on cognitions and relationships (Cristea et al., 2013; Reddy et al., 2011). This suggests that for the mental health lay carer population, experiential avoidance is strongly linked to their view of self and others (Ross, Hinshaw, & Murdock, 2016). Mental health carers' experience of attachment anxiety was not associated with the demographics of gender, relationship type, duration of caregiving or care-receiver recovery status. Hostility was associated with duration of caregiving, suggesting that the way mental health carers perceive others changes according to how long they have been in the role. Further investigation is required to determine the direction of this relationship, the significance of this highlighted by the high rates (49.2%) of Australian mental health carers who have been in their role for greater than ten years (Australian Bureau of Statistics, 2012).

Findings indicate that attachment anxiety and hostility fully mediate the relationship between experiential avoidance and interpersonal problem domains of cold/distant and socially inhibited, with hostility holding a slightly larger effect. Such mental health carers would experience simultaneous feelings of anxiety, discomfort, resentment and suspicion in their relationships (Buss & Perry, 1992; Snell Jr, 1998). Consequently, the carer may be more likely to interpret the care-receiver's actions through a lens of worry and suspicion, in turn responding by emotionally withdrawing and giving up their agency in the situation (resulting in cold and submissive interpersonal behaviors). This finding is partially consistent with Gerhart et al., (2014), whom implicated attachment anxiety but not hostility as a mediator for interpersonal problems involving coldness and social avoidance. The cold/distant domain and socially inhibited domain are adjacent on the interpersonal circumplex. The cold/distant domain-reflects difficulties in displaying affection, closeness and getting along with others, and the socially inhibited domain- reflects difficulties in socializing with others and reaching

for social connection. The shared features of these domains are low affiliation (a tendency to engage in cold behaviors) and medium/low control (a tendency to engage in submissive behaviors), suggesting that in the mental health carer population, hostility may be tied to low affiliation and attachment anxiety tied to submissive behavior.

Attachment anxiety partially mediated the relationship between experiential avoidance and interpersonal problem domains of overly accommodating and non-assertive. Mental health carers with perceptions and expectations that are characterized by attachment anxiety, would experience strong feelings of anxiety and discomfort in relationships, leading to concerns about their worthiness for the love and support of others (Snell Jr, 1998). Consequently, they may relate to others using self-protective behaviors that present as overly-accommodating and/or non-assertive. These domains have not been previously studied in the context of our mediation model and thus represent a novel finding. The overly-accommodating domain reflects difficulties in saying no, expressing anger and asserting oneself, whereas the non-assertive domain reflects difficulties in expressing one's needs, confronting others and being firm. These domains are adjacent on the interpersonal circumplex, with a shared feature of low control (i.e., a tendency to engage in submissive behaviors), once again implicating the role of attachment anxiety in mental health carers' submissive behaviors.

Hostility partially mediated the relationship between experiential avoidance and interpersonal problems of intrusive/needy, self-sacrificing, overly accommodating and vindictive/self-centered. Mental health carers with hostile perceptions and expectations would experience strong feelings of suspicion, resentment and sensitivity to mistreatment (Buss & Perry, 1992), which may be projected onto their interpretations of the care-receiver's behavior. The carer may compensate for this through excessive warmth, leading to a pattern of excessively self-sacrificing or overly accommodating behavior in an effort to offset these concerns, or may emotionally withdraw and utilize

vindictive/self-centred behaviors. The intrusive/needy domain reflects difficulties in keeping things private, excessive opening up to others and a need for attention; the self-sacrificing domain reflects a tendency to be overly generous, people pleasing and putting others needs first; the vindictive/self-centered domain reflects difficulty putting others' needs first, being supportive of others, and experiencing care for others. The first three of these domains are adjacent on the interpersonal circumplex, with a shared feature of high affiliation (i.e., a tendency to engage in warm behavior towards others). The exception to this is vindictive/self-centered, which is placed opposite to overly accommodating, and reflects low affiliation.

The finding that hostility predicts warm interpersonal behavior in mental health carers is at first glance counter-intuitive and inconsistent with Gerhart et al.'s (2014) suggestion that hostility is tied to aggressive behavior. However, the unique context of informal mental health caregiving may provide insight into this finding. It is common for mental health carers to experience aggression in their caring relationship (Varghese et al., 2016), including verbal abuse, destructive behavior, hitting or punching, harm to self or threats of suicide (Quinlan et al., 2018a; Reinares et al., 2006; Swan & Lavitt, 1988;). Responding with dominating, controlling and/or cold behavior may put the mental health carer in danger of further escalation and retaliation. Highlighting the importance of safety, studies indicate mental health carers' preferred strategies for responding to hostility include communicating love, affection and gentleness, careful listening and diverting attention away from the situation (Swan & Lavitt, 1988; Varghese et al., 2016). The provision of such warmth and comfort in the face of hostility may inadvertently reinforce the care-receivers aggression, creating a dysfunctional interpersonal pattern as both parties attempt to get their needs met.

Our findings indicate the relationship between experiential avoidance and the interpersonal problem of domineering/controlling was not mediated by attachment

anxiety or hostility. The domineering/controlling domain reflects high agency and control, aggression towards others and manipulative tendencies. The interpersonal principal of complementarity suggests that individuals behave in ways that evoke reciprocal behavior from others (Carson, 1969; Kiesler, 1983). Thus, it is possible that mental health carers' use of domineering/controlling behaviors evokes desired submissive behaviors from the care-receiver, leading to a self-sustaining and reinforcing system. As domineering/controlling individuals are described as "unable to consider another person's perspective" (Horowitz et al., 2000, p.38), the impact of negative perceptions and expectations of relationships on this system may be lessened due to the relational focus being on self rather than other.

The relationship between the mental health carer and care-receiver (i.e., parent, sibling, child, other relative, spouse or friend) was a significant co-variate in five of the eight interpersonal domains studied. This is consistent with a large body of prior work indicating parents, spouses, adult children and non-relatives experience and cope with caregiving differently (Hammond et al., 2014; Kim, et al., 2012; Lawn & McMahon, 2014). The five domains in question included vindictive/self-centred, cold/distant, socially inhibited, non-assertive and overly accommodating- all of which are adjacent on the interpersonal circumplex. The shared features of these domains include low to medium control and low to medium affiliation, suggesting relationship type has the greatest impact on interpersonal problems involving submission and coldness. Further research is needed to clarify the direction of these relationships.

The study findings have treatment implications when considering how to best support mental health carers' interpersonal problems. For carers experiencing interpersonal problems characterized by cold/distant and socially inhibited behaviors, our findings suggest that attachment anxiety and hostility should be included as targets of treatment rather than experiential avoidance alone. For example, this could be



achieved through attachment therapy focused on facilitating expression (Seedall & Wampler, 2016) and/or cognitive control training for hostility (Wilkowski, Crowe, & Ferguson, 2015). For all other interpersonal problem domains, it appears that a more direct intervention to address experiential avoidance may be warranted, such as Acceptance and Commitment Therapy (Hayes et al., 1999). As mental health carer's experience of experiential avoidance, attachment anxiety and hostility occur within the relational context of caregiving, couple or family therapy with the care-receiver could prove powerful in bringing these perceptions and expectations to light.

Overall, results of this study implicate attachment anxiety and hostility as having a mediating role between experiential avoidance and interpersonal problems for seven of eight domains studied. These relationships were apparent for both experiential avoidance as a general process and caregiving specific avoidance, lending robustness to the model. However, the cross-sectional nature of our study does not allow for an understanding of causal relationships between the studied variables, opening up the possibility of other potential models. Our findings regarding an alternative (reverse) mediational model indicated experiential avoidance mediated the relationship between attachment anxiety or hostility and interpersonal problems for three of the eight domains. Partial/full mediation was indicated for the overly accommodating, domineering/controlling and vindictive/self-centered domains, suggesting there may be alternative mechanisms by which experiential avoidance relates to these interpersonal problems. In addition, these results raise the possibility of reciprocal relationships. For example, the overly accommodating domain displayed partial mediation on both the original and reverse mediation models. Thus, it is possible that higher levels of experiential avoidance contribute to higher attachment anxiety and hostility and this in turn contributes to greater experiential avoidance. These reciprocal processes may ultimately lead to more interpersonal problems in the overly accommodating domain.

However, at this point such reciprocal relationships are speculative and there is a need for longitudinal study designs to test these hypotheses.

#### **5.4.1 Limitations**

The cross-sectional mediation design provides only a snapshot of mental health carers' experiences rather than an understanding of how experiential avoidance, interpersonal problems, attachment anxiety and hostility develop over time. Future research could include a longitudinal focus, to track mental health carer's experiential avoidance, attachment anxiety, hostility and interpersonal problems at various points in the caring journey. In addition, considering carers and care-receivers experience disparity in how they view their relationship (Manne et al., 2006); future research should involve both parties as active research participants. This could be achieved through joint interviews, dyadic diary studies and/or behavioral observation of relationship functioning, to explore how experiential avoidance, attachment anxiety, hostility and interpersonal problems unfold in real time. In light of the impact of relationship type on interpersonal problem domains, such studies should capture and compare the experiences of parents, spouses and other mental health carers. This study focused on informal mental health carers, and the relevance of these processes for paid mental health carers and professionals is an area for future research.

# **CHAPTER SIX:**

## **SUPPORTING MENTAL HEALTH**

### **CARERS**

## **6.1 Introduction**

Study 2 indicated that nearly one in five mental health carers require significant interpersonal support, highlighting the need for therapeutic interventions designed in response to interpersonal needs. Study 3 suggested a mechanism for the relationship between interpersonal problems and other psychological processes, highlighting the importance of considering experiential avoidance and negative expectations of relationships in planning interpersonal treatment. In what follows, an outline of the predominant therapeutic interventions for caregivers, existing interventions for experiential avoidance and negative expectations of relationships, and discussion of a promising intervention for mental health carer's interpersonal problems is presented.

## **6.2 Therapeutic interventions for caregivers**

Support options for mental health carers most commonly take the form of psychoeducation and/or psychotherapy groups (Arksey, 2003; Savage, 2002; Yesufu-Udechuku et al., 2015). Psychoeducation refers to the provision of information with the aim of increasing knowledge and coping skills (Coon, Keaveny, Valverde, Dadvar, & Gallagher-Thompson, 2012). Psychoeducation is typically delivered as a component alongside other interventions, as limited evidence suggests that it alone can reduce carer burden or improve carer wellbeing (Carers NSW, 2017; Chen & Greenberg, 2004). Psychoeducation has been found to be most effective when conceptualized within a broader psychological framework (e.g. Cognitive Behavior Therapy), delivered in a group format, and with active participation emphasized (Dickinson et al., 2016). Specific to mental health caregiving, a meta-analysis of 8 studies involving 428 participants indicated psychoeducation has a large benefit on psychological distress, however the evidence base is described as “very low quality” (Yesufu-Udechuku et al., 2015, p.270)

Psychotherapy groups for carers primarily have Cognitive Behavioral Therapy

(CBT) as the theoretical underpinning (Coon et al., 2012; Pinguart & Sørensen, 2006). CBT is a psycho-social intervention focused on altering unhelpful habits of thinking, feeling and behaving (Beck, 1970). CBT interventions aim to provide “strategies for changing dysfunctional thoughts or behaviors associated with a maladaptive coping style, replacing them with thoughts that promote pleasant activities, seeking help from other, or modifying antecedents and consequences of behavioral and psychological symptoms” (Losada et al., 2015a, p. 2). CBT interventions for carers have been studied extensively, with meta-analyses indicating benefits include reductions in carer burden, depression, and anxiety, and increases in wellbeing (Pinguart & Sørensen, 2006; Spijker et al., 2008). However, the generalizability of these findings is limited due to an overrepresentation of studies on dementia caregivers. Of the research specific to mental health caregivers, studies typically focus on particular diagnoses. Benefits of CBT for mental health carer subgroups include reductions in stress and negative experiences of caregiving, found in those caring for someone with depression (McCann, Songprakun, & Stephenson, 2015; McIlrae, Wilkes, Downey, & Colley, 2010); reductions in anxiety, depression, negative experiences of caregiving and expressed emotion found in those caring for someone with anorexia (Grover et al., 2011); and reductions in carers support needs, found in those caring for someone with schizophrenia (Sellwood et al., 2001).

An additional support option for caregivers is mindfulness based interventions. Mindfulness based interventions has seen a growth in popularity over the past twenty years, and are increasingly used with caregiver populations (Carers NSW, 2017). Mindfulness is defined as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, p.4). Mindfulness aims to foster greater awareness on present moment experience and is included in Mindfulness-based stress reduction (MBSR) and Acceptance and Commitment Therapy (ACT). MBSR is a therapeutic program which teaches mindfulness meditation, body awareness,

and yoga with the aim of improving quality of life (Grossman, Niemann, Schmidt, & Walach, 2004). Reviews of MBSR interventions for carers have found the benefits to include reductions in stress, depression, anger and caregiver burden; and increases in mood, self-compassion and quality of life (Brown, Coogle, & Wegelin, 2016; Li, Yuan, & Zhang, 2016). However, as work in this area is emerging, the robustness of findings is limited by small sample sizes, uncontrolled trials and a lack of longitudinal data (Li et al., 2016).

Acceptance and Commitment Therapy (ACT) is a ‘third wave’ therapy that utilizes acceptance and mindfulness techniques, alongside behavior change processes, to promote psychological flexibility (Hayes et al., 2006). Studies on ACT interventions have primarily occurred within the broader caregiving field. Reported benefits include reductions in psychological distress and caregiver burden, found in dementia carers (Franco, Sola Mdel, & Justo, 2010); reductions in depression and general distress, found in parents of children with Autism (Blackledge & Hayes, 2006); reductions in parenting distress, found in parents of children with intellectual disabilities (Rayan & Ahmad, 2017); and reductions in psychological distress, found in support staff (Noone & Hastings, 2011). It is unclear if the promising findings seen in the broad caregiving field would translate into the mental health carer context.

In summary, interventions for caregivers have primarily taken the form of psychoeducation, CBT and mindfulness based approaches such as MBSR and ACT. However, limited research has been specific to the mental health carer population. This was highlighted by a systematic review of carer interventions, which found the majority of interventions (70%) were designed for carers of Alzheimer’s and dementia (Arksey, 2003). It was concluded that there is a lack of strong evidence to support particular types of interventions for the mental health carer population (Arksey, 2003), a notion that was reinforced in a recent metareview by Yesufu-Udechuku et al (2015).

### **6.3 Relational interventions for carers**

Support for mental health carers' relationship difficulties is targeted through a range of interventions such as group interventions for expressed emotion (Sadath, Muralidhar, Varambally, & Gangadhar, 2017), mindfulness for empathic perspective taking (Birnie, Speca, & Carlson, 2010), and communication toolkits (Done & Thomas, 2001; Young, Manthorp, Howells, & Tullo, 2011). However, such interventions target specific relational difficulties in isolation rather than interpersonal functioning as a whole. In addition, the most common outcome measures utilized in mental health carer interventions are psychological distress and carer burden (Arksey, 2003; Yesufu-Udechuku et al., 2015). Surprisingly, mental health carers' interpersonal problems have not yet been utilized as a treatment target or outcome measure of treatment, despite their high prevalence.

Interventions targeting interpersonal functioning (rather than specific problem domains) need to display flexibility in accommodating different presentations and address the psychological processes thought to maintain relational dysfunction (Alden & Capreol, 1993). As established in Chapter 4, experiential avoidance and negative perceptions of relationships (i.e. attachment anxiety and hostility) have been identified as psychological processes that contribute to, or maintain, interpersonal problems. This highlights the importance of considering experiential avoidance and negative expectations of relationships when planning treatment for relational difficulties.

#### **6.3.1 Interventions for experiential avoidance**

The treatment of avoidant behaviors has traditionally occurred in the context of CBT- using exposure. Exposure is based on the principles of classical conditioning, and involves deliberate and prolonged contact with feared stimuli (Ougrin, 2011). The aim of such contact is decreased emotional responding or falsification of fearful interpretations (Neudeck & Wittchen, 2012; Richard & Lauterbach, 2011). For example,

exposure may help a mental health carer approach (rather than avoid) a difficult conversation through imagining the conversation and reactions of the other person. There may be other skills components such as practicing responses to different reactions when difficult issues are raised. As anxiety is maintained by avoidance of feared stimuli, exposure-based techniques are commonly used to treat anxiety disorders. Substantial evidence indicates that exposure is an effective tool for reducing anxiety and associated avoidance patterns (Olatunji, Davis, Powers, & Smits, 2013; Ougrin, 2011). However, the conceptualization of avoidance used in CBT is distinct from the experiential avoidance framework, which is broader and encompasses internal stimuli (Choi, Vickers, & Tassone, 2014).

MBSR aims to break the cycles of reactivity and avoidance by increasing capacity for present moment focus (Roemer, Roemer, Williston, Eustis, & Orsillo, 2013). For example, MBSR may help a mental health carer approach (rather than avoid) a difficult conversation by introducing body awareness techniques to refocus present moment attention. Preliminary research on MBSR interventions have indicated reduced pre-post experiential avoidance in studies involving 38 dementia carers (Brown et al., 2016), 53 adults (Tanay, Lotan, & Bernstein, 2012), 106 adults (Kearney, McDermott, Malte, Martinez, & Simpson, 2012), and 92 veterans (Weinrib, 2011). However, the latter two studies did not contain a control group, and results of longitudinal follow up have been mixed (i.e. continued significance at 6 months for Kearney et al., 2012 and no significance at 3 months for Brown et al., 2016). In addition, not all studies have displayed significance, with a recent study on 47 college students finding no significant differences in experiential avoidance post MBSR intervention as compared to a control group (Hazlett-Stevens & Oren, 2017).

Acceptance and Commitment Therapy (ACT) was designed explicitly to target experiential avoidance (Hayes et al., 1999) and thus has featured prominently in the



experiential avoidance literature (Chawla & Ostafin, 2007). ACT targets experiential avoidance by promoting acceptance- defined as “actively contacting psychological experiences – directly, fully, and without needless defense- while behaving effectively” (Hayes et al., 1996, p.1163). For example, acceptance may help a mental health carer approach (rather than avoid) a difficult conversation through acknowledging the associated fears and willingly taking action despite these internal experiences.

Acceptance is associated with a host of positive outcomes (for a review see Williams & Lynn, 2010) and is related to emotional wellbeing in caregivers (Beer, Ward, & Moar, 2013). ACT has been found to reduce experiential avoidance as compared to control groups in studies containing 376 adults with moderate depressive symptoms (Fledderus, Bohlmeijer, Pieterse, & Schreurs, 2012) and 93 adults with psychological distress, with gains maintained at three months follow-up (Fledderus, Bohlmeijer, Westerhof, & Smit, 2010). In addition, a study examining pre-post differences found reduced experiential avoidance following ACT in 88 substance abusing adults with effects maintained at 8 month follow-up (Luoma, Kohlenberg, Hayes, Bunting, & Rye, 2008). However, these promising results are predominantly based on studies that do not have comparison conditions. Although there are relatively few such studies, when ACT is compared to other approaches for the specific purpose of experiential avoidance reduction, results have been mixed. On the one hand, some studies has indicated that ACT is no more effective at reducing experiential avoidance than habit reversal training (Best, 2010) and systematic desensitization (Zettle, 2003). On the other hand, a study comparing the impact of ACT and CBT for dementia caregivers found that only ACT was associated with reductions in experiential avoidance (Losada et al., 2015a).

Growing theoretical arguments suggest that targeting experiential avoidance using an acceptance framework is particularly applicable to caregiver populations, such as carers of people with dementia (Losada et al., 2015a), carers of people with terminal

illness (Davis, Deane, & Lyons, 2015), and support staff for individuals with intellectual disability (Leoni, Corti, Cavagnola, Healy, & Noone, 2016). The caregiving role often involves uncomfortable experiences which are largely outside one's control (Losada et al., 2015a) and this reality may not always be amendable to the thought challenging, disputation or problem solving techniques of CBT. For example, not experiencing uncomfortable thoughts and emotions whilst managing an episode of active psychosis may not be a realistic expectation. The significance of this is highlighted by some research that has found caregivers' attempts to directly reduce or solve unpleasant emotional experiences is associated with increased stress and burden (Devereux et al., 2009). In contrast, ACT approaches encourage the acceptance of uncomfortable experiences as opposed to directly challenging cognitions associated with these experiences (Leoni et al., 2016; Losada et al., 2015a). The use of ACT- with its focus on psychological flexibility and value-based responding- acknowledges that caregiving is a "life context that will inevitably generate... uncomfortable thoughts and emotions" and these issues cannot necessarily be 'fixed' with therapy (Losada et al., 2015b, p.46).

### **6.3.2 Interventions for negative expectations of relationships**

Interventions that target negative expectations of relationships take a variety of forms. The technique of cognitive restructuring- from CBT- is one of the most well-known approaches to changing thoughts (Wenzel, 2017). Cognitive restructuring refers to the process of identifying, challenging, and modifying dysfunctional thoughts (A. T. Beck, 1964; J. S. Beck & Beck, 2011). For example, restructuring may assist a mental health carer to respond to their negative expectation "What's the point, they never listen" by considering the use of the word "never" and the cognitive process of overgeneralization. Evidence would be sought for exceptions to the rule or occasions where the individual does appear to have "listened". The individual might be encouraged to come up with more situationally specific or conditional ways of thinking

such as “Sometimes when I ask him to put out the trash he does not respond”, “When I am able to get him to make eye contact he mostly helps when asked”. Cognitive restructuring is a highly effective treatment for reducing symptoms in those with depression and anxiety (see Wenzel, 2017 for a review). In regards to the caregiver population, a review of studies specific to dementia carers found cognitive interventions to have a beneficial effects on anxiety, depression and subjective stress in carers, but not appraisals of coping and burden (Vernooij-Dassen et al., 2011).

Through encouraging individuals to “pay attention to what is happening in the moment, in a non-judgmental way, without relying on previous schemas” (Li et al., 2016, p. 293), mindfulness based interventions have the potential to reduce negative expectations of relationships. Acceptance and Commitment Therapy, in particular the skill of cognitive defusion, has particular relevance here. Fusion has been described as a process where people get stuck to such thoughts and have difficulty separating themselves from these thoughts to the extent that they come to dominate their behaviour. Defusion describes the process of perceiving thoughts as mental events rather than literal truths (Hayes et al., 2006) and assists one to make behavioral choices based on values rather than falling into automatic patterns. For example, defusion may assist a mental health carer to recognize their negative expectation “What’s the point, they never listen” as just a thought instead of responding as though it and the meaning behind it (e.g., he/she does not respect or care for me) are truths. Defusion is thought to facilitate the capacity of people to not respond as though their beliefs were factual and in this instance to work towards their value of communication even in the face of hostile or anxious feelings. Studies in this area suggest that defusion is associated with less believability and emotional impact of negative thoughts (Mandavia et al., 2015; Masuda et al., 2010), and predicts more approach and less avoidance coping behavior (Donald, Atkins, Parker, Guo, & Christie, 2017). Research specific to defusion in carers has been limited and

existing studies have produced mixed results. Of two studies specific to caregiving populations, one found significant reductions in thought suppression following ACT intervention (McConachie, McKenzie, Morris, & Walley, 2014) and the other found no changes to thought patterns (Bethay, Wilson, Schnetzer, & Nassar, 2013).

Although not commonly used within the caregiving field, schema therapy was designed to assist individuals to change maladaptive patterns in thought and behaviors (Beck, 1964). Central to this approach is the concept of ‘schemas’, defined as negative and longstanding cognitive frameworks regarding self and others (Beck, 1964; Young, Klosko, & Weishaar, 2006). Schemas have a strong history within the interpersonal development field and have been posed to contribute to and maintain interpersonal dysfunction (Beckley, 2011; Douglas et al., 2013; Thimm, 2013). Schema therapy aims to identify and alter these frameworks, and may for example, assist a mental health carer to recognize their negative expectation “What’s the point, they never listen” is a result of past experiences of emotional deprivation and not a reflection of present truths. A review of twelve schema therapy studies found low quality evidence of changes in thought patterns and symptom reduction (Taylor, Bee, & Haddock, 2017). However, these studies all focused on individuals with personality disorder, leaving generalizability to carers unclear. The use of schema interventions with the caregiver population is rare, with only one study incorporating this in therapy with carers of those entering hospice (Lindstrom & Melnyk, 2013). Results indicated reduced anxiety, increased preparedness for the role, increased confidence, and increases in helpful beliefs in carers who engaged in the schema intervention (Lindstrom & Melnyk, 2013).

In addition to these broader frameworks, interventions specific to attachment anxiety and hostility have been identified. Negative expectations characterized by attachment anxiety benefit from; attachment therapy focused on facilitating expression (Seedall & Wampler, 2016), emotion focused therapy (Dalgleish et al., 2015), and group

therapy focused on affect regulation and interpersonal patterns (Marmarosh & Tasca, 2013). Negative expectations characterized by hostility benefit from self-control training (Denson, Capper, Oaten, Friese, & Schofield, 2011; Finkel, DeWall, Slotter, Oaten, & Foshee, 2009), cognitive control training for hostility (Wilkowski et al., 2015) and mindfulness (Borders, Earleywine, & Jajodia, 2010; Fix & Fix, 2013).

#### **6.4 A new approach: ACT and Schema**

Carer interventions with two or more conceptually different approaches have consistently achieved more positive outcomes (Carers NSW, 2017; Dickinson et al., 2016; Laver, Milte, Dyer, & Crotty, 2016). For example, the Resources for Enhancing Caregiver Health (REACH) project found positive benefits for a multicomponent carer intervention that combined stress management, links to community support, and caregiver training (Elliott, Burgio, & DeCoster, 2010). Additionally, multicomponent interventions have been found to be most effective when delivered in a group format which allows for peer support and networking (Dickinson et al., 2016; Carers NSW, 2017). As multicomponent interventions are recognised as best practice for carer populations (Dickinson et al., 2016; Carers NSW, 2017), this suggests the utility of considering two theoretical approaches.

McKay, Lev and Skeen (2012) suggest that interpersonal problems are ideally targeted using a multicomponent intervention that utilizes ACT concepts delivered within a schema based formulation. The authors proposed that this combination targets the processes that underpin maladaptive interpersonal patterns; specifically, inflexible responding (addressed through ACT), relational beliefs about self and others (addressed through Schema therapy) and experiential avoidance (addressed through ACT) (McKay et al., 2012). The authors devised a ten week group protocol for this new approach, the effectiveness of which was investigated by Avigail Lev (2011) in a randomized controlled study. This study involved 44 male participants attending a community clinic

for treatment for substance use problems, with participants engaging in either the ACT and Schema group or treatment as usual. Results indicated a significant reduction in pre-test to post-test maladaptive interpersonal functioning as measured by the Inventory of Interpersonal Problems (IIP) amongst participants that engaged in the ACT and Schema based treatment as compared to participants receiving treatment as usual (Lev, 2011).

The use of an ACT and Schema group intervention with the mental health carer population has a strong empirical and clinical rationale: 1) Correlational data demonstrates that the processes targeted by ACT (i.e. experiential avoidance and negative expectations of relationships) and Schema therapy (i.e. negative expectations of relationships) are associated with mental health carer's experiences of interpersonal problems; 2) There is a conceptual rationale for the role of experiential avoidance and negative expectations of relationships (targeted by ACT) in underpinning mental health carers interpersonal problems; 3) Existing studies demonstrate positive results for ACT based interventions with caregiver populations; 4) Carer interventions with two conceptually different approaches consistently achieve more positive outcomes, and such interventions appear most effective when delivered in a group format (Dickinson et al., 2016; Carers NSW, 2017)

## **CHAPTER SEVEN:**

# **STUDY FOUR-** Pilot of an Acceptance and Commitment Therapy and Schema group intervention for Mental Health Carers’ Interpersonal Problems

Aspects of this study have been submitted for publication (see Appendix S).

Quinlan, E., Deane, F. P., Crowe, T. (2018c). Pilot of an Acceptance and Commitment Therapy and Schema group intervention for Mental Health Carer’s Interpersonal Problems. *Manuscript submitted for publication.*

## **7.1 Outline and aims**

Study four aims to pilot an ACT and Schema group intervention for mental health carers' interpersonal problems, examining acceptability and conducting preliminary assessment of effectiveness.

## **7.2 Method**

### **7.2.1 Study design**

This pilot study had a mixed methods design, incorporating both quantitative and qualitative data. Quantitative data was gained through assessment booklets administered at week one, week six and week twelve of the program, with two additional measures administered on a weekly basis. Qualitative data was gained through focus groups conducted three months post intervention. This study was approved by the University of Wollongong Human Research Ethics Committee (Appendix A).

### **7.2.2 Pilot testing and participants**

The program was pilot tested in three community mental health organizations in the state of New South Wales, Australia. Due to the length of the program and constraints of service capacity, multiple programs were conducted over the period of late 2015 to mid-2017. On each occasion, the service advertised the program to their current client base using flyers and word of mouth. Interested caregivers were invited to attend an intake meeting where suitability for the program was assessed and information on the research provided. The inclusion criteria were: 1) aged 18 years or above, 2) self-identify as a caregiver of a person with mental illness, 3) self-identify as experiencing interpersonal difficulties, 4) willingness and ability to commit to the twelve week program. Exclusion criteria were: 1) acute crisis, 2) moderate to high suicide risk, 3) mental health or cognitive difficulties that would significantly impact upon engagement. See Appendix T for details of intake procedure and suitability assessment. Caregivers provided written



consent at the intake meeting (Appendix C).

### **7.2.3 Intervention**

The intervention consisted of a group program aimed to assist mental health caregivers to build stronger and more mindful relationships, titled ‘Me and My Relationships’ (MMR). The program was closely based on an existing 10 week protocol by McKay et al. (2012) (see Chapter 6 and Table 6) but adapted to be suitable to the mental health carer population. The MMR program was structured over 12 weeks, with each session of 1.5 hours duration. Program content is outlined in Table 7. A detailed facilitator’s handbook was developed in order to ensure consistency in delivery across sites and a client handbook containing information and worksheets was provided to participants. The main facilitator held a Bachelor’s degree in psychology and provisional registration as a psychologist. Training consisted of a one-day ACT workshop and weekly supervision occurred during the duration of the program. Co-facilitation was by a nominated staff member of the relevant organization, who was required to hold bachelor level qualifications in psychology, counselling or social work. Training consisted of a one-day ACT workshop and weekly supervision.

Table 7

*Structure of the Me and My Relationships Program*

Phase	Week	Session content
Understanding current patterns	Week 1	Icebreaker, orientation, group rules, introductions to schemas and mindfulness
	Week 2	Mindfulness, review schemas, my current and ideal relationships
	Week 3	Mindfulness, schema questionnaire; identifying my patterns
	Week 4	Mindfulness, schema coping behaviours, costs and benefits of common coping behaviors
	Week 5	Mindfulness, secondary pain, creative hopelessness, self as observer
Transforming current patterns	Week 6	Mindfulness, value clarification, setting values-oriented goals, barriers; willingness
	Week 7	Mindfulness, review and set new goals, defusion psychoeducation and practice
	Week 8	Review and set new goals, self-evaluations and fusion, self as observer, mindfulness
Strengthening new patterns	Week 9	Review and set new goals, willingness, workability of anger, valued responding, mindfulness
	Week 10	Review and set new goals, workability of emotional control, defusion, self as observer, mindfulness
	Week 11	Review and set new goals, effective communication, acceptance, termination preparation, mindfulness
	Week 12	Review and set new goals, compassion, eco map, future triggers, barriers and coping strategies

#### 7.2.4 Measures

In addition to information on socio-demographic data (Appendix J: described in 3.2.2), several self-report questionnaires were utilized. All measures were collected at commencement of the program (week one), at the mid-point (week six) and at the final week (week twelve). In addition, two measures (the Outcome Rating Scale and Session Rating Scale) were completed on a weekly basis.

The *Inventory of Interpersonal Problems 32* (IIP-32: Barkham, Hardy, & Startup, 1996; Horowitz et al., 1988) was utilized to measure interpersonal difficulties. This is the same measure described in Study 2, see 3.2.2 for full description. In the current sample internal consistency was excellent,  $\alpha=.92$ .

The *Brief Experiential Avoidance Questionnaire* (BEAQ: Gámez et al., 2014) was utilized to measure experiential avoidance of painful emotions and uncomfortable situations. In addition, the *Experiential Avoidance in Caregiving Questionnaire* (EACQ: Losada et al., 2014) was used to measure experiential avoidance of emotions, thoughts and sensations regarding caregiving. The BEAQ and EACQ are the same measures described in Study 3, see 5.2.2 for full description. In the current sample internal consistency for the BEAQ was good,  $\alpha=.84$ ; for the EACQ it was acceptable,  $\alpha=.75$ .

The *Mindfulness Awareness Attention Scale* (MAAS: Brown & Ryan, 2003: Appendix U) was chosen to measure dispositional mindfulness (i.e., inherent capacity). It consists of 15 items (e.g., 'I find myself doing things without paying attention') answered on a 6-point Likert scale (1 = 'almost always', 6 = 'almost never'). Items are summed, with higher scores indicating higher levels of dispositional mindfulness. The MAAS-15 has been shown to be a reliable and valid instrument for use in general adult populations, with a Cronbach's alpha ranging from 0.82 to 0.87 (Brown & Ryan, 2003). In the current sample internal consistency was good,  $\alpha=.89$ .

The *Outcome Rating Scale* (ORS: Miller, Duncan, Brown, Sparks, & Claud, 2003: Appendix V) was utilized to measure changes in wellbeing. The ORS is a visual analogue scale with four items that measure individual well-being, interpersonal well-being, social well-being and general well-being. Participants rate how they feel that that area of their life has been for them over the course of a week on a line ranging from 0 to 10. Items are scored and totaled using a 10mm ruler and the maximum possible score is 40. Higher scores indicate greater quality of life and a score of 25 has been identified as a clinical cutoff which differentiates clinical and nonclinical populations (Miller et al., 2003). This measure has a reported coefficient alpha of .93 and good internal consistency and test-retest reliability (Miller et al., 2003; Bringham, Watson, Miller, & Duncan, 2006). In the current sample internal consistency was acceptable,  $\alpha=.79$ .

The *Session Rating Scale* (SRS: Duncan et al., 2003: Appendix W) was utilized to measure participant's perception of the usefulness and effectiveness of the MMR program. The SRS is a visual analogue scale that provides feedback on four items: perceptions of the therapeutic relationship, goals and topics, approach and methods, and overall satisfaction. Participants indicate how well they feel the delivered intervention meets each criterion on a line ranging from 0 to 10. Items are scored and totaled using a 10mm ruler. Higher scores indicate greater satisfaction with the intervention, with optimal scores in the 36-40 range. The SRS demonstrates impressive internal consistency and test-retest reliability (Miller et al., 2003; Duncan et al., 2003). In the current sample internal consistency was excellent,  $\alpha=.90$ .

Three months following the first MMR group, participants were invited via email to attend a focus group to explore their experience of the program and its impact on their caring relationships (Appendix X). This process was repeated for the second and third group. Focus group participants were provided with an information sheet and written consent was obtained (Appendix Y). Questions included: 1) Has the program assisted you with managing your

interpersonal difficulties with the person you are caring for? (If yes: how?), 2) What changes (if any) have you noticed in your relationships since completing the program? 3) Since completing the program, have you noticed any change in your capacity to accept or your tendency to avoid difficult relationship experiences? (If yes: please describe these changes), 4) Could you describe any helpful events during the program? 5) Could you describe any hindering events during the program? Focus groups were audio-recorded for the purposes of transcription.

## **7.2.5 Data analysis**

### **7.2.5.1 Quantitative**

A series of one-way repeated measure ANOVAs were conducted to assess changes on all outcome measures over the three time points (Weeks 1, 6, 12). Normality tests indicated our variables of caregiving avoidance, experiential avoidance, mindfulness and wellbeing were all normally distributed, with mild to moderate skewness present for several of the interpersonal problem domain variables. Where variables displayed skewness, non-parametric equivalents were conducted. Mauchly's test of sphericity was assessed for all ANOVAs, with a Greenhouse Geisser correction applied where this assumption was not met. Where ANOVAs indicated significant effects by time, we conducted stepdown paired comparisons using a Bonferroni correction to control for Type 1 errors. Cohen's *d* effect sizes for significant paired comparisons were calculated using <http://www.socscistatistics.com/effectsize/Default3.aspx> (accessed 17 October 2017). Interpretation was as follows: 0.2 to 0.4 representing a small effect, 0.5 to 0.7 representing a medium effect, 0.8 and above representing a large effect (Cohen, 1988). All analyses were conducted using the IBM SPSS Statistics package version 21.

In light of Salzer et al.'s (2011) suggestion that measuring only the mean interpersonal problem value on the Inventory of Interpersonal Problems negates individual

differences, additional analyses were undertaken. Reductions in problematic interpersonal problems on an individual level were also examined. Participants who had reductions from the above average range (i.e.  $\geq 60$ : one standard deviation above the mean) to the average range were also described. To assess acceptability, mean scores on the Session Rating Scale, number of sessions attended by each individual and the timing of missed sessions were also examined. Any participants who dropped out of the program and at what point this occurred (attrition) was noted.

#### **7.2.5.2 Qualitative**

Qualitative analysis consisted of thematic analysis guided by the steps outlined by Braun and Clarke (2006). Focus group dialogues were transcribed verbatim and de-identified labels were used in the interest of confidentiality. Following careful reading and re-reading of transcripts, initial codes and themes were developed using a grounded theory approach by two researchers. To assist with interrater reliability, a manual was created which listed codes, descriptions of each code, example quotes and emergent themes. Codes and themes underwent successive rounds of comparison, within and across focus groups, as their content and meaning were compared in relation to one another and to the dataset in its entirety. When discrepancies were present, themes and definitions were reviewed by the two researchers and discussed against the raw data set until agreement was met. Once the list of themes was finalized, a name was given to each theme thought to capture its essence and the final report was produced.

### **7.3 Results**

As shown in the study flowchart (Figure 12), 34 participants attended an intake meeting. Two decided that they did not wish to take part in the program, and four were deemed not appropriate according to inclusion/exclusion criteria. Thus 28 clients began the program, of

which 24 reached the final week of the program.

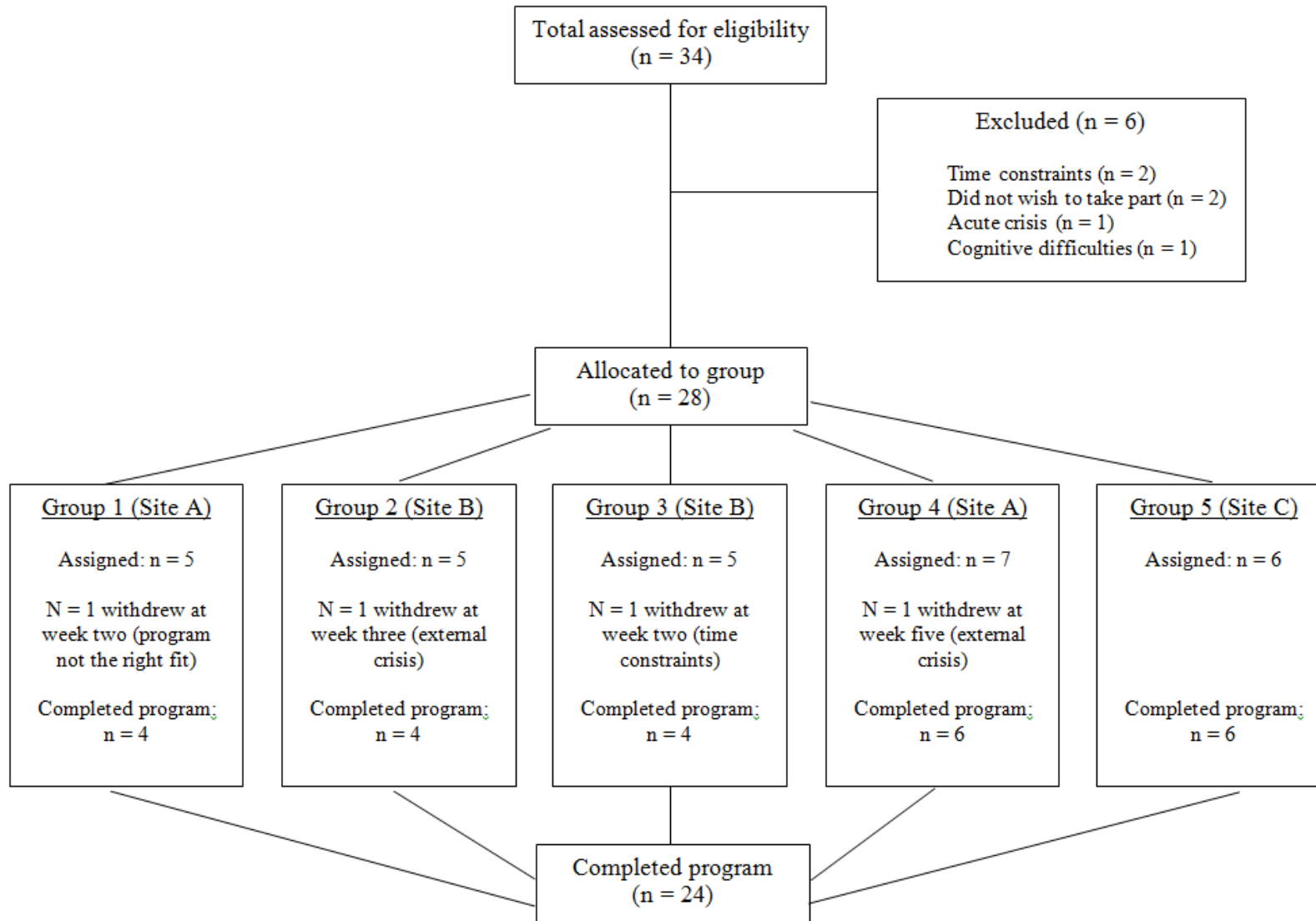


Figure 12. Participant flow diagram.



All participants were caring for a family member; which consisted of parents (50%), spouse (29.2%), siblings (8.3%) and other relatives (12.5%). The vast majority of participants were women (83.3%). Just over half (58.3%) of participants were long term carers, having cared for the care receivers for over 10 years. The mental health condition of the care-receiver's were identified by the carer, with depression (41.7%) and anxiety (54.2%) the most frequently reported. More than one condition could be identified for each care recipient and other conditions included Bipolar Disorder (25%), Post-Traumatic Stress Disorder (20.8%), Borderline Personality Disorder (29.2%), Schizophrenia (20.8%) and Substance Use Difficulties (8.3%). The majority of carers (45.8%) identified they perceived the care-receiver to be in recovery, with the remaining participants disagreeing (25%) or reporting they were unsure (29.2%). Of this original sample, 50% (n = 12) took part in focus groups.

### **7.3.1 Acceptability**

Retention and participation rates were high. The vast majority of participants (85%) who commenced the program completed it. Of the four participants who withdrew, all did so during the first half of the program (week 2; week 2; week 3 and week 5). Attendance for participants who completed the program was consistently high, with 11 participants (46% of sample) attending the entire program, 11 participants (46%) attending 11 of the 12 sessions, and 2 participants (8%) attending 10 of 12 sessions. No participants attended less than 10 sessions. Across the entire pilot, the average number of sessions attended was 11.38. The vast majority (80%) of missed sessions occurred in the second half of the program, with weeks 8 to 10 a period of risk that accounted for 60% of the total missed sessions.

The Session Rating Scale indicated consistently positive feedback on the program, with an average score of 35.8 at week one (n = 24), 36.5 at week six (n = 24) and 38.7 at week twelve (n = 24). The average SRS score across all weeks and all five groups was 37.3

out of a possible 40 ( $n = 273$ ).

### **7.3.2 Preliminary testing of effectiveness**

Descriptive statistics and repeated measure ANOVA results are presented in Table 8.

Table 8

Means, standard deviations and repeated measures ANOVA's over time ( $n = 24$ )

Measures	Week 1		Week 6		Week 12		F value (df = 2, 46)
	Mean	SD	Mean	SD	Mean	SD	
Total Interpersonal Problems	61.88 <sup>a</sup>	11.19	56.92	10.93	53.33 <sup>a</sup>	8.58	6.63**
Domineering/Controlling	53.58	12.29	52.00 <sup>a</sup>	9.35	48.54 <sup>a</sup>	8.28	4.64*
Vindictive/Self-Centered	55.25	13.68	50.50	8.56	49.25	8.12	2.51#
Cold/Distant	57.21 <sup>a</sup>	14.26	52.50	10.44	50.54 <sup>a</sup>	9.52	4.75*
Socially Inhibited	56.96	13.16	53.33	12.02	51.21	10.96	2.28
Non-assertive	62.83 <sup>a</sup>	11.76	58.04	12.29	54.54 <sup>a</sup>	10.32	5.13*
Overly Accommodating	64.38 <sup>ab</sup>	12.58	57.54 <sup>a</sup>	11.01	56.00 <sup>b</sup>	10.39	8.21**
Self-Sacrificing	61.67	11.82	59.42	8.99	55.83	8.49	3.81*
Intrusive/Needy	55.04	11.12	55.25	11.66	52.54	9.90	0.87
Experiential avoidance	54.17 <sup>a</sup>	13.00	49.00	11.90	44.13 <sup>a</sup>	9.50	10.21***
Caregiving avoidance	39.63 <sup>a</sup>	8.03	37.13 <sup>b</sup>	7.35	32.00 <sup>ab</sup>	6.55	17.07***
Mindfulness	48.00 <sup>ab</sup>	12.75	55.46 <sup>a</sup>	12.87	58.13 <sup>b</sup>	11.40	13.75**
Wellbeing	19.98 <sup>ab</sup>	7.77	25.19 <sup>bc</sup>	8.78	30.79 <sup>ac</sup>	6.45	23.92***

Note.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

<sup>abc</sup> Means that share a superscript in each row are significantly different at  $p < .05$  (Bonferroni adjusted)

# Greenhouse Geisser adjustment (df = 1.51, 34.61)

Ten of the thirteen ANOVAs indicated that there were significant differences on measures over time. Stepdown paired comparisons indicated total interpersonal problems significantly reduced between week one and twelve ( $M_{diff} = 8.55$ , 95% CI 2.28 to 14.80) with a large effect size ( $d = 0.86$ ). On the domain level, domineering/controlling significantly reduced between week six and twelve ( $M_{diff} = 3.46$ , 95% CI 2.26 to 6.66) with a small effect size ( $d = 0.39$ ). Cold/distant reduced between week one and twelve ( $M_{diff} = 6.67$ , 95% CI .14 to 13.19) with a medium effect size ( $d = 0.55$ ). Non-assertive reduced between week one and twelve ( $M_{diff} = 8.29$ , 95% CI 1.42 to 15.16) with a medium effect size ( $d = 0.70$ ). Overly accommodating reduced between week one and six ( $M_{diff} = 6.84$ , 95% CI 1.02 to 12.64) with a medium effect size ( $d = 0.58$ ), in addition to week one and twelve ( $M_{diff} = 8.38$ , 95% CI 1.97 to 14.78), medium effect size ( $d = 0.73$ ). Due to the presence of mild to moderate skewness on several interpersonal problem variables, nonparametric Friedman's tests were conducted with Wilcoxon Signed Ranks tests to assess paired comparisons. All nonparametric tests were consistent with those from the ANOVA results with regard to significant effects.

On our remaining variables, experiential avoidance significantly reduced between week one and twelve ( $M_{diff} = 10.04$ , 95% CI 4.30 to 15.78) with a large effect size ( $d = 0.89$ ). Caregiving avoidance reduced between week six and twelve ( $M_{diff} = 5.13$ , 95% CI 1.72 to 8.53) with a medium effect size ( $d = 0.73$ ), in addition to week one and twelve ( $M_{diff} = 7.63$ , 95% CI 3.92 to 11.33), large effect size ( $d = 1.04$ ). Mindfulness increased between week one and six ( $M_{diff} = -7.46$ , 95% CI -12.46 to -2.45) with a medium effect size ( $d = 0.59$ ), in addition to week one and twelve ( $M_{diff} = -10.13$ , 95% CI -15.89 to -4.36), large effect size ( $d = 0.84$ ). Wellbeing increased between week one and six ( $M_{diff} = -5.21$ , 95% CI -9.76 to -.66) with a medium effect size ( $d = 0.63$ ), week six and twelve ( $M_{diff} = -5.6$ , 95% CI -9.46 to -1.75) with a medium effect size ( $d = 0.72$ ) and week one and twelve ( $M_{diff} = -$

10.81, 95% CI -14.46 to -7.16) with a large effect size ( $d = 1.50$ ).

We also examined the number of individuals scoring in the above average range ( $\geq 60$ ) for interpersonal problem domains across the three time points of the intervention. As indicated in Table 9, the total interpersonal problem score displayed a 71.4% decrease between week one and twelve. At the domain level the number of participants scoring in the above average range reduced by at least 50%, with a range of 50% (domineering/controlling) to 62.5% (self-sacrificing).

Table 9

*Proportions of individuals experiencing above average ( $\geq 60$ ) interpersonal problems at different points during the intervention (n = 24)*

	Week 1	Week 6	Week 12
	% (N)	% (N)	% (N)
Domineering/Controlling	16.7% (4)	25.0% (6)	8.3% (2)
Vindictive/Self-Centered	25.0% (6)	12.5% (3)	8.3% (2)
Cold/Distant	37.5% (9)	20.8% (5)	16.7% (4)
Socially Inhibited	41.7% (10)	29.2% (7)	20.8% (5)
Non-assertive	58.3% (14)	41.7% (10)	20.8% (5)
Overly Accommodating	62.5% (15)	37.5% (9)	29.2% (7)
Self-Sacrificing	66.7% (16)	54.2% (13)	25.0% (6)
Intrusive/Needy	29.2% (7)	25.0% (6)	12.5% (3)
Total Interpersonal Problems	58.3% (14)	33.3% (8)	16.7% (4)

### 7.3.3 Qualitative results

Three focus groups were held with prior participants of group one (n = 4), group two (n = 4) and group three (n = 4). All twelve participants attended, representing 50% of the original sample. Focus groups ran for approximately one hour duration and contained set questions regarding changes in relationships and acceptance since completing the program, in addition

to discussion of helpful and hindering events. Thematic analysis identified the following themes from the focus group data: aspects of program, reactivity, changes in emotion, acceptance of caregiving, communication, agency and connection. Themes are set out in the following section, in order of prevalence among participants. In what follows, quotes from participants are coded according to focus group attended (range of 1-3) and identifying number for each participant within that focus group (range of 1-4).

*i. Aspects of program*

Participants reflected on various aspects of the MMR program content that was most helpful for them.

The most helpful parts were the schemas- the things that drive your behavior. The mindfulness, because it's key to me for separation of myself and feelings. And the values (1.1)

For me the biggest thing was values, the core values right down to the person that you want to be- the values that you hold and the question 'am I living by those values'. For me that was the most important thing, I wasn't living by the values that I held (1.3)

Mindfulness has helped me a lot (3.1)

In addition, participants described relational experiences during the MMR program as pivotal to their journey. Such comments focused on the social support of the group, connection with other participants and facilitators, and vicarious learning:

The facilitators were very caring, I felt like if I needed to talk I could talk (3.2)

You learn that you're not alone (1.4)

One of the other group members also had a daughter. I heard my story a bit, and how she deals with it. It made me realize that I need to let go a bit more (2.2)

*ii. Changes in Emotion*

Participants described changes in their emotions, which took two distinct forms. First, participants described experiencing particular emotions at reduced frequency and intensity since completing the program.

I asked my wife and my daughter whether they'd noticed any changes since the course. My wife said that I'm less stressed and less angry. My daughter said I'm not as much of an emotional pushover; I'm more consistent in my emotions (1.1)

I lived with a lot of guilt... I don't live with that guilt anymore (2.2)

My anxiety is not as bad as it used to be (3.4)

Second, participants described changes in their relationship with emotions, in that they had increased ability to accept and respond in a different way. Such responses included increased willingness, ability to defuse and utilize self as context.

I sit back and feel the feelings, and practice feeling them. I try to be the sky, and I know that they are not really me (2.3)

I've got the ability to see it over there, leaves going down the river in the mindfulness sense, I can separate my emotions from who I am and what's important to me (3.3)

For me I find that I'm not as afraid to address my feelings and think about it (1.4)

*iii. Reactivity*

Participants described changes in their reactivity when difficult relational experiences occurred. These included decreased emotional reactivity and a sense that one could more mindfully 'respond'

I respond more. I've learnt not to react so much (1.1)

I didn't realize that the schemas caused me to react in the wrong way. It's made me realize how I was reacting was not good, and that I had to change as well (2.1)

Being able to manage how you react and respond to how you're feeling, rather than going into this chaotic emotional drama (2.4)

iv. *Acceptance of caregiving*

Participants described an increased ability to accept and be at peace with difficult characteristics of their mental health carer role. Such comments centered on accepting the care-receiver's mental illness and the associated limitations, accepting the ongoing nature of the caregiving role, and increased willingness to engage in aspects of care rather than avoid.

With my son I have accepted that that's his diagnosis, he's not going to change... It's given me the confidence to accept things a lot easier. A lot of things I didn't accept. I've got a lot more ability to accept things and say 'you can't change it' (1.4)

Realizing that's it life and it's not going to go away (2.3)

I have more understanding about my daughter, I accept it. When things are difficult, I go ahead more than before. Whatever comes I try to manage it (3.1)

v. *Communication*

Participants discussed changes in communication within their caregiving relationship, as well as their wider social network. Changes in quality of conversation, increased listening, increased reciprocal conversation and increased ability to take feedback were noted.

I've learnt to listen closer to what my son says- actively listen- whereas before I would just go into my panic stage and not really hear it... My son is talking to me more about his condition and how he feels, and what's going on for him (1.2)



My husband is actually listening more and taking advice, whereas before he would just shut off (3.4)

Not as much fired up communication as before. It's more the quality of conversation and understanding now (3.2)

*vi. Agency*

Participants discussed changes in how they wielded agency within their caring relationship. Participants noted changes in their willingness and ability to assert their needs with others.

I have tried to be more assertive. I have the strength now to say I have had enough, you need to stop. I feel stronger in myself (3.3)

I learnt how to actually be assertive about things and not aggressive when I wanted to say something (1.3)

For me it's taught me to be a bit more assertive, whereas before I would just do the run-away. I'm finding I'm not doing that, I'm actually voicing my opinion (1.2)

In addition, participants noted changes in the balance of control within their carer relationship. Participants discussed an increased willingness to let go of control and provide the care receiver with more choices and responsibilities.

I'm coping a lot better at letting difficult situations be, without having to run up there in person and take control and take charge of everyone and everything (3.2)

I'm learning when to step in and when to step out (2.3)

I don't push him anymore now, I allow him to make the choice (1.2)

*vii. Connection*

Participants discussed changes in the quality of their relationships and the level of connection they felt with others. These changes were noted both in relation to the care-receiver and their wider social network.

My relationship with my son is great, we're getting on great, he's posting things on Facebook like "I've got the greatest mum ever". A year ago if you'd said that it would have been "I wanna kill my mum" (1.4)

Now I feel like I'm living by my values, being the mum I want to be, being the friend I want to be, being the wife I want to be (2.4)

My son has said similar, he said we are getting along a lot better (1.2)

#### **7.4 Discussion**

This study aimed to explore whether an ACT and Schema group program would be acceptable to a mental health carer population and show preliminary effectiveness. Findings indicate that the interpersonal problem domains of domineering/controlling, cold/distant, non-assertive, overly accommodating, self-sacrificing- as well as the total interpersonal problem score- significantly reduced, when comparing measures collected at the last week of the program with those collected at the first week. This result is consistent with literature indicating interpersonal problems pertaining to overly accommodating and self-sacrificing experience the most gains from psychotherapy (Cain et al., 2010; Horowitz, et al., 1993; Renner et al., 2012). The interpersonal problem domains of vindictive/self-centred, socially inhibited and intrusive needy were not associated with statistically significant change over time. Two of these domains- vindictive/self-centred and intrusive/needy- have been identified as least amendable to psychotherapy (Cain et al., 2010; Horowitz et al., 1993; Renner et al., 2012). However, as participants commenced with different interpersonal profiles, group results should be interpreted with caution as individual changes can be masked. For example,

excessively non-assertive carers may have increased in dominance and excessively domineering carers may have increased in non-assertiveness. The number of participants presenting with above average interpersonal problems reduced over time by at least 50% for each domain, with our three non-significant domains reducing by 66% (vindictive/self-centred), 50% (socially inhibited) and 58% (intrusive/needy). Prior work on socially inhibited individuals has established that large changes in interpersonal profiles can be evident even when minimal changes to overall distress occurs (Salzer et al., 2011). Accordingly, individuals may experience fundamental shifts in their interpersonal style not evident on a group level. Qualitative findings provide insight into potential processes for managing interpersonal problems, with participants noting the importance of connection, communication, agency and processing of emotions. For example, at the focus group interviews one participant (2.3) described increased emotional regulation, increased agency and decreased reactivity in the three months since completing the program. Outcomes for this participant include a reduction in interpersonal problems of non-assertive, socially inhibited, overly accommodating and self-sacrificing from the above average range at program commencement to the average range at week twelve.

Benefits outside of interpersonal functioning were also evident, with findings indicating participant's perceived mindfulness and wellbeing significantly increased, and perceived experiential and caregiving avoidance significant decreased, at the last week of program compared to the first. This is consistent with a notable body of research on the impact of ACT-based interventions for caregiver populations (Leoni et al., 2016; Losada et al., 2015b; McConachie et al., 2014; Noone & Hastings, 2010). Qualitative results provided some insight into these changes, with participants noting increased emotional regulation, decreased reactivity, increased response flexibility and improved relationships- consistent with what we know to be the benefits of mindfulness (D. Davis & Hayes, 2011). In addition,

participants noted increased willingness and acceptance- consistent with the experiential avoidance literature (Hayes et al., 1996). Although this study was not designed to determine causal relationships between variables, the theoretical framework suggests that mindfulness and experiential avoidance may be mechanisms of change in relation to interpersonal functioning. Considering experiential avoidance has been found to mediate the effect of mindfulness on multiple outcomes (for a review, see Weinrib, 2011), further investigation of the relationships between these variables is required.

Focus group responses, SRS scores, attendance and retention rates indicated that the MMR program was highly acceptable and no major modifications to the content are anticipated. Findings highlight the importance of retaining participants in the first half of the program, and encouraging attendance in the second half of the program. Of the thirteen outcome measures utilized in this study, nine indicated significant change occurred over time. On all but one occasion this significant change was found to occur in the week one to week twelve time period (as opposed to Week 1 to 6 period), suggesting the full duration of program (i.e. 1.5 hour weekly for twelve weeks) is needed for maximum benefit. This is somewhat surprising in light of research suggesting the effect of therapy is greatest in early sessions with less rapid rates of change seen over time (Kopta, 2003; Stulz, Lutz, Kopta, Minami, & Saunders, 2013). The necessity of all twelve weeks may be explained by the sequential skill building structure of the MMR program, which contains an early emphasis on conceptual based exposure and gradual move towards behavioral implementation of core skills. Additionally, entrenched interpersonal problem patterns may require more time to alter, especially if these are supported by well-established schema. Although the full program is relatively intensive, the success of the current pilot across three community organizations suggests promise for its future feasibility.

Considering the difficulties caregivers face in obtaining support due to time, distance

and competing demands (Bormann et al., 2009; Moore & McArthur, 2007), the accessibility of the MMR program needs to be considered. On average, only 4.8 carers attended each program; the intervention was designed to accommodate approximately 8 caregivers. Our study utilized participants who self-identified as experiencing interpersonal difficulties, however the use of a standardized screening process may assist in identifying additional carers who may benefit from the program. The Inventory of Interpersonal Problems- which provides a direct connection between assessment, interpersonal theory and intervention- represents one avenue for achieving this (Horowitz et al., 2000; Alden et al., 1990). Flexible modes of intervention delivery, such as correspondence (Deane, Marshall, Crowe, White, & Kavanagh, 2015) or technology assisted approaches (Scott et al., 2016) have shown promise for the caregiver population, and represent an additional avenue for improving the access of future MMR programs.

This study has several limitations which should be noted. The sample size was small and its self-selected nature means it is not representative of all mental health carers or their interpersonal profiles. The design of the study- open pilot with the absence of control group- does not allow for causal conclusions about the impact of the intervention. As an uncontrolled study, the possibility that outcomes were explained by social support or other non-specific aspects of the program (e.g., expectations) cannot be ruled out. However, the presence of medium to large effect sizes and qualitative data from focus groups suggests that it is unlikely non-specific factors were the primary source of benefit. There were also a number of limitations in regards to our outcome measures. First, our measures were primarily ACT based, with no measures to assess schema. The inclusion of schema outcome measures may have assisted in capturing underlying schema modes that are related to negative expectations of relationships. Second, our measures were self-report in nature and relied exclusively on the mental health carers' perception of their relationships. Considering carers

and care-receivers experience disparity in how they view their relationship (Manne et al., 2006), this study could have been improved by incorporating measures of perceptions of interpersonal functioning from care-receivers. Third, the collection of final measures at the last week of program- chosen to maximize completion rates given the small sample size- limits the generalizability of outcomes over time. The use of focus groups at three months post-intervention provided some indication of sustainability of change, however the addition of longitudinal quantitative data would have enhanced our study.

Although tentative, findings provide preliminary support for the utility of an ACT and Schema group intervention for improving interpersonal functioning in mental health carers. Given the high prevalence of interpersonal problems in this population (Study 2) and paucity of research in the area, further investigation is needed. Ideally, this would take the form of an adequately powered randomized controlled trial (RCT). The RCT could determine potential benefits of the intervention as compared to a control group, incorporate schema outcome measures and longitudinal data in the study design, and ascertain accessibility of the program.

# **CHAPTER EIGHT:**

## **CONCLUSIONS**

## **8.1 Overall summary and future directions**

The aims of this thesis were:

1. To explore mental health carers experiences of interpersonal problems within their relationship with the care-receiver (Study 1).
2. To determine the severity of these interpersonal problems as compared to that of a community sample (Study 2).
3. To identify if particular domains of interpersonal problems are more prevalent in mental health carers than in a community sample (Study 2).
4. To determine if duration of caregiving (shorter vs longer term) is associated with the severity or domains of interpersonal problems experienced by mental health carers (Study 2)
5. To determine if relationship type (parent and spouse) is associated with severity or domains of interpersonal problems experienced by mental health carers (Study 2).
6. To examine the relationship between experiential avoidance and interpersonal problems and test the mediating role of attachment anxiety and hostility (Study 3).
7. To test an alternative model in which experiential avoidance mediates the relationship between interpersonal problems, attachment anxiety and hostility (Study 3).
8. To examine the acceptability and preliminary effectiveness of an ACT and Schema group intervention for mental health carers' interpersonal problems (Study 4).

Penning, Wu and Zheng stated that “limited research attention has been directed toward the implications of caregiver–care recipient relationships for an understanding of caregiving outcomes” (2016, p.1102). This thesis represents a program of research that attempts to further our understanding of mental health carers unique relational difficulties.



## 8.2 Integration of findings

Taken together, these four studies have led to a number of findings in relation to the interpersonal problem experiences of mental health carers in their relationships with care-receivers.

1. Common interpersonal experiences that are problematic for mental health carers include managing difficult emotions such as anger, anxiety and sadness, dealing with aggression, avoidance of internal experiences and external conflict with the care receiver, taking excessive responsibility in managing difficulties with care receiver, imbalances of control in the carer relationship, difficulties communicating with the care-receiver and challenges in managing the demands of the carer role.
2. Mental health carers experience higher interpersonal difficulties in their relationships than a community sample. The percentage of mental health carers experiencing significant difficulty in their relationships was 17.7% compared to approximately 3-6% of the general population.
3. The two most common types of relationship problems for mental health carers were difficulties with being overly accommodating characterized by finding it hard to say no or stand up for themselves. They were also too self-sacrificing characterized by finding it hard to put their own needs first.
4. Longer term carers (> 10 years) were more likely to struggle with vindictive/self-centred interpersonal problems, such as hostility in their relationship and finding it hard to feel empathy. Shorter term carers (< 10 years) were more likely to struggle with overly accommodating interpersonal problems, such as difficulty expressing disagreement and being easily taken advantage of.
5. There were no statistically significant differences between parent carers and spouse

carers in regards to overall severity of interpersonal problems or severity of particular domains.

6. Experiential avoidance is strongly linked to negative expectations of relationships in mental health carers, as it consistently predicts attachment anxiety and hostility.
7. Hostility was associated with duration of caregiving, suggesting that the way mental health carers perceive others varies according to how long they have been in the carer role. As the present research examined hostility as a covariate, further research is needed to clarify the direction of this relationship.
8. Attachment anxiety and hostility fully mediate the relationship between experiential avoidance and interpersonal problem domains of cold/distant and socially inhibited in mental health carers. Attachment anxiety partially mediated the relationship between experiential avoidance and interpersonal problem domains of overly accommodating and non-assertive. Hostility partially mediated the relationship between experiential avoidance and interpersonal problems of intrusive/needy, self-sacrificing, overly accommodating and vindictive/self-centered. No mediation occurred for the domineering/controlling domain.
9. Alternative (reverse) model findings indicated partial/full mediation for the overly accommodating, domineering/controlling and vindictive/self-centered domains, and no mediation for the remaining five domains.
10. The use of an ACT and Schema group intervention for interpersonal problems was highly acceptable to mental health carers, with high attendance rates and positive perceptions of the intervention.
11. Preliminary testing of the effectiveness of an ACT and Schema group intervention for mental health carers indicated significant improvements in interpersonal problems, experiential avoidance, caregiving avoidance, mindfulness and wellbeing over time.

12. When reflecting on their experiences in the ACT and Schema group intervention three months later, participants noted the importance of the following: the program content and social support; changes in the intensity of their emotions and how they relate to these; decreased emotional reactivity; acceptance of difficult aspects of their caregiving role; changes in quality of communication; changes in agency, such as asserting their needs and relenting control; and improved connections with others.

Findings from this thesis may serve to normalize the challenging interpersonal experiences that can accompany the mental health caregiving role. In doing so, this information reminds us of the importance of supporting mental health carers in the relationship that connects them to the care-receiver. Support services can assist mental health caregivers by recognizing and focusing on their relationship, the potential role of experiential avoidance in maintaining interpersonal patterns, and the way the carer perceives others through filters of attachment anxiety and hostility. In addition, considering these processes occur in a relational context, couple or family therapy with the care-receiver could prove powerful in improving interpersonal functioning. Above all, a holistic approach to supporting mental health carers is needed, in which relationship support is offered alongside essential practical support (e.g. respite care, financial assistance and peer networking).

In sum the series of studies in this thesis have:

1. Highlighted the multi-faceted nature of mental health carers interpersonal experiences and difficulties.
2. Established that mental health carers are likely to experience interpersonal distress and particular interpersonal problems domains at greater severity than the general population.
3. Established that the relationship between experiential avoidance and particular

interpersonal problem domains is mediated by attachment anxiety and hostility.

4. Demonstrated that an ACT and Schema intervention for interpersonal problems is acceptable to the mental health carer population and that attendance coincides with improvements across multiple domains.

### **8.3 Limitations and future directions**

The mental health carers in this series of studies were primarily female with the majority caring for a family member. Carers were not randomly selected and instead recruited through carer support agencies, and thus it is possible that our sample over-represents treatment seekers. Throughout the studies in this thesis, there was a high proportion of individuals who were caring for someone with mood disorders (i.e. high rates of depression, anxiety and bipolar seen in our samples) and relatively low rates of other disorders such as schizophrenia. This may represent our method of recruitment, which involved community carer support agencies, rather than clinical services. Therefore, caution is required in generalizing findings to the mental health carer population and further research using stratified samples is recommended.

Findings highlight the considerable worth in future investigations into the development, maintenance and treatment of mental health carers' interpersonal problems. Given the clinical importance of this information in supporting caregivers in their role, further research of greater methodological rigor is needed. Ideally, this would involve 1) larger samples that consist of randomly selected participants, 2) objective measures of relationship functioning, 3) a longitudinal focus, and 4) adequately powered randomized control trials.

## REFERENCES

- Adelman, R., Tmanova, L., Delgado, D., Dion, S., & Lachs, M. S. (2014). Caregiver Burden: A Clinical Review. *JAMA*, 311(10), 1052-1060. doi:10.1001/jama.2014.304.
- Albert, R., & Simpson, A. (2015). Double deprivation: A phenomenological study into the experience of being a carer during a mental health crisis. *Journal of Advanced Nursing*, 71(12), 2753-2762. doi:10.1111/jan.12742.
- Alden, L., & Capreol, M. (1993). Avoidant personality disorder: Interpersonal problems as predictors of treatment response. *Behavior Therapy*, 24(3), 357-376. doi:10.1016/S0005-7894(05)80211-4.
- Alden, L., Wiggins, J., & Pincus, A. (1990). Construction of circumplex scales for the Inventory of Interpersonal Problems. *Journal of Personality Assessment*, 55(3-4), 521-536. doi:10.1207/s15327752jpa5503&4\_10.
- Arksey, H. (2003). Scoping the field: services for carers of people with mental health problems. *Health & Social Care in the Community*, 11(4), 335-344, doi: 10.1046/j.1365-2524.2003.00433.x.
- Australian Bureau of Statistics. (2007). *National survey of mental health and wellbeing: Summary of results* (Cat. No. 4327.0). Belconnen, Australia.
- Australian Bureau of Statistics. (2012). *Survey of Disability, Ageing and Carers* (Cat. No. 4430.0). Belconnen, Australia.
- Australian Bureau of Statistics. (2015) *Survey of Disability, Ageing and Carers* (Cat. No. 4430.0). Belconnen, Australia.
- Australian Department of Human Services. (2006). *Recognising and supporting care relationships: a Department of Human Services policy framework*. Melbourne.

- Bailey, R. C., & Grenyer, B. F. S. (2015). The relationship between expressed emotion and wellbeing for families and carers of a relative with Borderline Personality Disorder. *Personality And Mental Health, 9*(1), 21-32. doi:10.1002/pmh.1273.
- Barkham, M., Hardy, G. E., & Startup, M. (1996). The IIP-32: A short version of the Inventory of Interpersonal Problems. *British Journal of Clinical Psychology, 35*(1), 21-35, doi:10.1111/j.2044-8260.1996.tb01159.x.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. doi:10.1037/0022-3514.51.6.1173.
- Barrett, M. S., & Barber, J. P. (2007). Interpersonal profiles in major depressive disorder, *Journal of Clinical Psychology, 63*(3), 247-66.
- Bastawrous, M. (2013). Caregiver burden—A critical discussion. *International Journal Of Nursing Studies, 50*(3), 431-441. doi:10.1016/j.ijnurstu.2012.10.005
- Bazin, N., Sarfati, Y., Lefrère, F., Passerieux, C., & Hardy-Baylé, M. C. (2005). Scale for the evaluation of communication disorders in patients with schizophrenia: A validation study. *Schizophrenia Research, 77*(1), 75-84. doi:10.1016/j.schres.2005.01.020.
- Beck, A. (1964). Thinking and depression. II. Theory and therapy. *Archives Of General Psychiatry, 10*, 561-571, doi:10.1001/archpsyc.1964.01720240015003.
- Beck, A. (1970). Cognitive Therapy: Nature and Relation to Behavior Therapy. *Behavior Therapy, 1*, 184-200. [http://dx.doi.org/10.1016/S0005-7894\(70\)80030-2](http://dx.doi.org/10.1016/S0005-7894(70)80030-2).
- Beck, J. S., & Beck, A. T. (2011). *Cognitive Behavior Therapy Basics and Beyond* (2ed). Guilford Publications.

- Beckley, K. (2011). Making Sense of Interpersonal Dynamics: A Schema Focused Approach. In P. G. Willmot, N. (Ed.), *Working Positively with Personality Disorder in Secure Settings: A Practitioner's Perspective* (pp. 172-187): John Wiley & Sons.
- Beer, M., Ward, L., & Moar, K. (2013). The relationship between mindful parenting and distress in parents of children with an autism spectrum disorder. *Mindfulness*, 4(2), 102-112, doi:10.1007/s12671-012-0192-4.
- Bernstein, I. H., & Gesn, P. R. (1997). On the dimensionality of the Buss/Perry aggression questionnaire. *Behaviour Research and Therapy*, 35(6), 563-568. doi:10.1016/s0005-7967(97)00014-4.
- Best, M. W., & Bowie, C. R. (2013). Neurophysiological responses to schizophrenia-associated communication abnormalities. *Schizophrenia Research*, 148(1-3), 157-162. doi:10.1016/j.schres.2013.06.009.
- Best, S. H. (2010). Experiential avoidance in chronic tic disorders: An online survey and pilot treatment study using habit reversal and acceptance and commitment therapy (Doctoral dissertation). *ProQuest Dissertations and Theses database*. UMI No. 3366736.
- Bethay, J. S., Wilson, K. G., Schnetzer, L. W., & Nassar, S. L. (2013). A Controlled Pilot Evaluation of Acceptance and Commitment Training for Intellectual Disability Staff. *Mindfulness*, 4(2), 113-121. doi: 10.1007/s12671-012-0103-8.
- Beutler, L. E., Machado, P. P., Engle, D., & Mohr, D. (1993). Differential patient × treatment maintenance among cognitive, experiential, and self-directed psychotherapies, *Journal of Psychotherapy Integration*, 3(1), 15-31.
- Birnie, K., Speca, M., & Carlson, L. E. (2010). Exploring self-compassion and empathy in the context of mindfulness-based stress reduction (MBSR). *Stress & Health: Journal*

- of the International Society for the Investigation of Stress*, 26(5), 359-371,  
doi:10.1002/smi.1305.
- Blackledge, J. T., & Hayes, S. C. (2006). Using Acceptance and Commitment Training in the Support of Parents of Children Diagnosed with Autism. *Child & Family Behavior Therapy*, 28(1), 1-18, doi:10.1300/J019v28n01\_01.
- Borders, A., Earleywine, M., & Jajodia, A. (2010). Could mindfulness decrease anger, hostility, and aggression by decreasing rumination? *Aggressive Behavior*, 36(1), 28-44. doi:10.1002/ab.20327.
- Bormann, J., Warren, K. A., Regalbuto, L., Glaser, D., Kelly, A., Schnack, J., & Hinton, L. (2009). A spiritually based caregiver intervention with telephone delivery for family caregivers of veterans with dementia. *Family & Community Health*, 32(4), 345-353, doi:10.1097/FCH.0b013e3181b91fd6.
- Bradford, S. A., Feeney, J. A., & Campbell, L. (2002). Links between attachment orientations and dispositional and diary-based measures of disclosure in dating couples: A study of actor and partner effects. *Personal Relationships*, 9(4), 491-506. doi: 10.1111/1475-6811.00031.
- Braithwaite, V. (2000). Contextual or general stress outcomes: Making choices through caregiving appraisals. *The Gerontologist*, 40(6), 706-717. doi:10.1093/geront/40.6.706.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa.
- Bringhurst, D. L., Watson, C. W., Miller, S. D., & Duncan, B. L. (2006). The reliability and validity of the Outcome Rating Scale: a replication study of a brief clinical measure. *Journal of Brief Therapy*, 5, 23-30.



- Broady, T. R., & Stone, K. (2015). "How can I take a break?" Coping strategies and support needs of mental health carers. *Social Work in Mental Health*, 13(4), 318-335.  
doi:10.1080/15332985.2014.955941.
- Brown, K. W., Coogle, C. L., & Wegelin, J. (2016). A pilot randomized controlled trial of mindfulness-based stress reduction for caregivers of family members with dementia. *Aging and Mental Health*, 20(11), 1157-1166. doi:10.1080/13607863.2015.1065790
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84 (4), 822-848, doi:10.1037/0022-3514.84.4.822.
- Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality & Social Psychology*, 63(3), 452. doi: 10.1037/0022-3514.63.3.452.
- Cain, N. M., Pincus, A. L., & Holtforth, M. G. (2010). Interpersonal Subtypes in Social Phobia: Diagnostic and Treatment Implications. *Journal of Personality Assessment*, 92(6), 514-527, doi:10.1080/00223891.2010.513704.
- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of Conflict and Support in Romantic Relationships: The Role of Attachment Anxiety. *Journal of Personality and Social Psychology*, 88(3), 510-531. doi:10.1037/0022-3514.88.3.510.
- Campling, J., & Jones, D. W. (2001). *Myths, Madness and the Family: The Impact of Mental Illness on Families*: Macmillan Education UK.
- Carers NSW. (2016). *Carer Survey: Main Report*. Sydney: Australia.
- Carers NSW. (2017). *Carer Counselling Literature Review*. Sydney: Australia.
- Carers Recognition Act NSW*. (2010). Available from  
<https://www.legislation.nsw.gov.au/#/view/act/2010/20/whole>.

- Carnelley, K. B., Pietromonaco, P. R., & Jaffe, K. (1996). Attachment, caregiving, and relationship functioning in couples: Effects of self and partner. *Personal Relationships, 3*(3), 257-278. doi:10.1111/j.1475-6811.1996.tb00116.x.
- Carpenter, B. D. (2001). Attachment bonds between adult daughters and their older mothers: Associations with contemporary caregiving. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 56B*(5), 257-266. doi:10.1093/geronb/56.5.P257.
- Carson, R. C. (1969). *Interaction concepts of personality*. Chicago: Aldine.
- Chang, S., Zhang, Y., Jeyagurunathan, A., Lau, Y. W., Sagayadevan, V., Chong, S. A., & Subramaniam, M. (2016). Providing care to relatives with mental illness: Reactions and distress among primary informal caregivers. *BMC Psychiatry, 16*. doi:10.1186/s12888-016-0786-9.
- Chattoo, S., & Ahmad, W. I. U. (2008). The moral economy of selfhood and caring: Negotiating boundaries of personal care as embodied moral practice. *Sociology of Health and Illness, 30*(4), 550-564. doi:10.1111/j.1467-9566.2007.01072.x.
- Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology, 63*(9), 871-890. doi:10.1002/jclp.20400.
- Chen, F. P., & Greenberg, J. S. (2004). A Positive Aspect of Caregiving: The Influence of Social Support on Caregiving Gains for Family Members of Relatives with Schizophrenia. *Community Mental Health Journal, 40*(5), 423-435. doi:10.1023/B:COMH.0000040656.89143.82.
- Cherry, M. G., Taylor, P. J., Brown, S. L., Rigby, J. W., & Sellwood, W. (2017). Guilt, shame and expressed emotion in carers of people with long-term mental health

- difficulties: A systematic review. *Psychiatry Research*, 249, 139-151.  
doi:10.1016/j.psychres.2016.12.056.
- Choi, K., Vickers, K., & Tassone, A. (2014). Trait Emotional Intelligence, Anxiety Sensitivity, and Experiential Avoidance in Stress Reactivity and Their Improvement Through Psychological Methods. *Europe's Journal of Psychology*, 10(2), 376-404, doi:10.5964/ejop.v10i2.754.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale: Lawrence Erlbaum.
- Coleman, R., & Smith, M. (2007). *Working with Voices II*. P & P Press, Dundee.
- Coon, D. W., Keaveny, M., Valverde, I. R., Dadvar, S., & Gallagher-Thompson, D. (2012). Evidence-based psychological treatments for distress in family caregivers of older adults. In F. Scogin, A. Shah, F. Scogin, & A. Shah (Eds.), *Making Evidence-based Psychological Treatments work with Older Adults*. (pp. 225-284). Washington, DC, US: American Psychological Association.
- Cooper, C., Katona, C., Orrell, M., & Livingston, G. (2006). Research report: Coping strategies and anxiety in caregivers of people with Alzheimer's disease: The LASER-AD study. *Journal of Affective Disorders*, 90, 15-20. doi:10.1016/j.jad.2005.08.017.
- Cooper, C., Owens, C., Katona, C., & Livingston, G. (2008). Attachment style and anxiety in carers of people with Alzheimer's disease: results from the LASER-AD study. *International Psychogeriatrics*, 20(3), 494-507. doi: 10.1017/S104161020700645X.
- Crispi, E. L., Schiaffino, K., & Berman, W. H. (1997). The contribution of attachment to burden in adult children of institutionalized parents with dementia. *Gerontologist*, 37(1), 52-60. doi: 10.1093/geront/37.1.52.
- Cristea, I. A., Montgomery, G. H., Szamoskozi, Ş., & David, D. (2013). Key Constructs in “Classical” and “New Wave” Cognitive Behavioral Psychotherapies: Relationships

Among Each Other and With Emotional Distress. *Journal of Clinical Psychology*, 69(6), 584-599, doi:10.1002/jclp.21976.

Cummins, R., Hughes, J., Tomyn, A., Gibson, A., Woerner, J., Lai, L. (2007). Australian Unity Wellbeing Index Survey: 17.1. The wellbeing of Australians: Carer health and wellbeing. Retrieved from <http://hdl.handle.net/10536/DRO/DU:30010534>.

Dalgleish, T. L., Johnson, S. M., Burgess Moser, M., Lafontaine, M. F., Wiebe, S. A., & Tasca, G. A. (2015). Predicting change in marital satisfaction throughout emotionally focused couple therapy. *Journal of Marital and Family Therapy*, 41(3), 276-291. doi:10.1111/jmft.12077.

Davies, M. (2000). *The Blackwell Encyclopedia of Social Work*. Oxford: Blackwell

Davis, D., & Hayes, J. (2011). What are the benefits of mindfulness? A practice review of psychotherapy-related research. *Psychotherapy*, 48(2), 198-208, doi:10.1037/a0022062.

Davis, E., Deane, F. P., & Lyons, G. (2015). Acceptance and valued living as critical appraisal and coping strengths for caregivers dealing with terminal illness and bereavement. *Palliative and Supportive Care*, 13(2), 359-368, doi:10.1017/S1478951514000431.

Deane, F. P., Marshall, S., Crowe, T., White, A., & Kavanagh, D. (2015). A Randomized Controlled Trial of a Correspondence-Based Intervention for Carers of Relatives with Psychosis. *Clinical Psychology & Psychotherapy*, 22(2), 142-152, doi:10.1002/cpp.1880.

Denson, T. F., Capper, M. M., Oaten, M., Friese, M., & Schofield, T. P. (2011). Self-control training decreases aggression in response to provocation in aggressive individuals. *Journal of Research in Personality*, 45(2), 252-256. doi:10.1016/j.jrp.2011.02.001.

- Devereux, J., Hastings, R., & Noone, S. (2009). Staff stress and burnout in intellectual disability services: Work stress theory and its application. *Journal of Applied Research in Intellectual Disabilities*, 22(6), 561-573, doi:10.1111/j.1468-3148.2009.00509.x.
- Dickinson, C., Dow, J., Gibson, G., Hayes, L., Robalino, S., & Robinson, L. (2016). Psychosocial intervention for carers of people with dementia: What components are most effective and when? A systematic review of systematic reviews. *International Psychogeriatrics*, 29(1), 31-43, doi:10.1017/S1041610216001447.
- Diminic, S., Hielscher, E., Lee, Y., Harris, M., Schess, J... Whiteford, H. (2016). *The economic value of informal mental health caregiving in Australia: summary report*. Brisbane: University of Queensland.
- Dinos, S., Serfaty, M., Weich, S., King, M., & Stevens, S. (2004). Stigma: The feelings and experiences of 46 people with mental illness - Qualitative study. *British Journal of Psychiatry*, 184, 176-181. doi:10.1192/bjp.184.2.176.
- Dodge, K. A., & Coie, J. D. (1987). Social-Information-Processing Factors in Reactive and Proactive Aggression in Children's Peer Groups. *Journal of Personality & Social Psychology*, 53(6), 1146-1158. doi: 10.1037/0022-3514.53.6.1146.
- Donald, J. N., Atkins, P. W. B., Parker, P. D., Guo, J., & Christie, A. M. (2017). Cognitive Defusion Predicts More Approach and Less Avoidance Coping With Stress, Independent of Threat and Self-Efficacy Appraisals. *Journal of Personality*, 85(5), 716-729, doi:10.1111/jopy.12279.
- Done, D. J., & Thomas, J. A. (2001). Training in communication skills for informal carers of people suffering from dementia: a cluster randomized clinical trial comparing a therapist led workshop and a booklet. *International Journal of Geriatric Psychiatry*, 16(8), 816-821, doi: 10.1002/gps.436.

- Douglas, A. N., Binder, K. S., Kajos, J. H., Hyde, J., & Li, Y. (2013). Reading Relationships, But Seeing Betrayal: Impact of Relational Health Schemas on Processing of Interpersonal Conflict. *Journal of Social & Clinical Psychology, 32*(9), 964-988, doi:10.1521/jscp.2013.32.9.964.
- Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology, 75*(2), 545-560, doi:10.1037/0022-3514.75.2.545.
- Drapalski, A. L., Lucksted, A., Perrin, P. B., Aakre, J. M., Brown, C. H., DeForge, B. R., & Boyd, J. E. (2013). A model of internalized stigma and its effects on people with mental illness. *Psychiatric Services, 64*(3), 264-269. doi:10.1176/appi.ps.001322012.
- Duncan, B. L., Miller, S. D., Sparks, J., Claud, D., Reynolds, L., Brown, J., & Johnson, L. (2003). The Session Rating Scale: Preliminary psychometric properties of a “working” alliance measure. *Journal of Brief Therapy, 3*(1), 3-12.
- Elliott, A., Burgio, L., & DeCoster, J. (2010). Enhancing caregiver health: findings from the Resources for Enhancing Alzheimer's Caregiver Health II intervention. *Journal Of The American Geriatrics Society, 58*(1), 30-37. doi:10.1111/j.1532-5415.2009.02631.x
- Erikson, E. H. (1959). *Identity and the life cycle*. New York: International Universities Press, 1959, reprinted 1968.
- Erikson, E. H. (1968). *Identity, youth and crisis*. New York: Norton
- Finkel, E. J., DeWall, C. N., Slotter, E. B., Oaten, M., & Foshee, V. A. (2009). Self-regulatory failure and intimate partner violence perpetration. *Journal of Personality and Social Psychology, 97*(3), 483-499. doi:10.1037/a0015433.

- Fix, R. L., & Fix, S. T. (2013). The effects of mindfulness-based treatments for aggression: A critical review. *Aggression and Violent Behavior, 18*, 219-227.  
doi:10.1016/j.avb.2012.11.009.
- Fledderus, M., Bohlmeijer, E. T., Pieterse, M. E., & Schreurs, K. M. G. (2012). Acceptance and commitment therapy as guided self-help for psychological distress and positive mental health: A randomized controlled trial. *Psychological Medicine, 42*(3), 485-495. doi:10.1017/S0033291711001206.
- Fledderus, M., Bohlmeijer, E. T., Westerhof, G. J., & Smit, F. (2010). Mental health promotion as a new goal in public mental health care: A randomized controlled trial of an intervention enhancing psychological flexibility. *American Journal of Public Health, 100*(12), 2372-2378. doi:10.2105/AJPH.2010.196196.
- Franco, C., Sola Mdel, M., & Justo, E. (2010). Reducing psychological discomfort and overload in Alzheimer's family caregivers through a mindfulness meditation program. *Revista Española de Geriatría y Gerontología, 45*(5), 252-258.  
doi:10.1016/j.regg.2010.03.006.
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., Suzuki, N., & Watson, D. (2014). The brief experiential avoidance questionnaire: Development and initial validation. *Psychological Assessment, 26*(1), 35-45, doi:10.1037/a0034473.
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., & Watson, D. (2011). Development of a Measure of Experiential Avoidance: The Multidimensional Experiential Avoidance Questionnaire. *Psychological Assessment, 23*(3), 692-713. doi:10.1037/a0023242.
- Gerhart, J. I., Baker, C. N., Hoerger, M., & Ronan, G. F. (2014). Experiential avoidance and interpersonal problems: A moderated mediation model. *Journal of Contextual Behavioral Science, 3*(4), 291-298, doi:10.1016/j.jcbs.2014.08.003.

- Ghiabi, B., & Besharat, M. A. (2011). Emotional Intelligence, Alexithymia, and Interpersonal Problems, *Procedia - Social and Behavioral Sciences*, 30, 98-102.
- González-Blanch, C., Martín-Muñoz, V., Pardo-García, G., Martínez-García, O., Alvarez-Jiménez, M., Rodríguez-Sánchez, J. M., . . . Crespo-Facorro, B. (2010). Effects of family psychoeducation on expressed emotion and burden of care in first-episode psychosis: A prospective observational study. *Spanish Journal of Psychology*, 13(1), 389-395. doi:10.1017/S1138741600003942.
- Grandón, P., Jenaro, C., & Lemos, S. (2008). Primary caregivers of schizophrenia outpatients: Burden and predictor variables. *Psychiatry Research*, 158, 335-343. doi:10.1016/j.psychres.2006.12.013.
- Gray, B., Seddon, D., Robinson, C. A., & Roberts, A. (2009). An emotive subject: insights from social, voluntary and healthcare professionals into the feelings of family carers for people with mental health problems. *Health and Social Care in the Community*, 17(2), 125-132. doi:10.1111/j.1365-2524.2008.00803.x.
- Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, 57(1), 35-43. doi:10.1016/S0022-3999(03)00573-7.
- Grover, M., Williams, C., Eisler, I., Fairbairn, P., McCloskey, C., Smith, G., . . . Schmidt, U. (2011). An off-line pilot evaluation of a web-based systemic cognitive-behavioral intervention for carers of people with anorexia nervosa. *The International Journal Of Eating Disorders*, 44(8), 708-715. doi:10.1002/eat.20871.
- Gurtman, M. B. (1992). Trust, distrust, and interpersonal problems: A circumplex analysis. *Journal of Personality & Social Psychology*, 62(6), 989-1002.
- Haley, W. E., & Pardo, K. M. (1989). Relationship of severity of dementia to caregiving stressors, *Psychology and Aging*, 4(4), 389-92.



- Hammond, T., Weinberg, M. K., & Cummins, R. A. (2014). The dyadic interaction of relationships and disability type on informal carer subjective well-being. *Quality of Life Research*, 23, 1535-42.
- Harden, J. (2005). Parenting a young person with mental health problems: temporal disruption and reconstruction. *Sociology of Health & Illness*, 27(3), 351-371. doi:10.1111/j.1467-9566.2005.00446.x.
- Harris, J. A. (1997). A further evaluation of the aggression questionnaire: Issues of validity and reliability. *Behaviour Research and Therapy*, 35(11), 1047-1053. doi:10.1016/S0005-7967(97)00064-8.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis a regression-based approach* / Andrew F. Hayes: New York : Guilford Press.
- Hayes, S., Luoma, J., Bond, F., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1-25, doi:10.1016/j.brat.2005.06.006.
- Hayes, S., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: An Experiential Approach to Behavior Change*. New York: Guilford Press.
- Hayes, S., & Wilson, K. (1994). Acceptance and commitment therapy: Altering the verbal support for experiential avoidance. *The Behavior Analyst*, 17(2), 289-303.
- Hayes, S., Wilson, K., Gifford, E., Follette, V., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64(6), 1152-1168, doi:10.1002/jclp.20400.
- Hazlett-Stevens, H., & Oren, Y. (2017). Effectiveness of Mindfulness-Based Stress Reduction Bibliotherapy: A Preliminary Randomized Controlled Trial. *Journal of Clinical Psychology*, 73(6), 626-637. doi:10.1002/jclp.22370.

- Henderson, J. (2001). 'He's not my carer—he's my husband': personal and policy constructions of care in mental health. *Journal of Social Work Practice, 15*(2), 149-159. doi:10.1080/02650530120090601.
- Henderson, J., & Forbat, L. (2002). Relationship-based social policy: Personal and policy constructions of 'care'. *Critical Social Policy, 22*(4), 669-687. doi:10.1177/02610183020220040601.
- Hoenig, J., & Hamilton, M. W. (1966). The Schizophrenic Patient in the Community and His Effect On the Household. *International Journal Of Social Psychiatry, 12*(3), 165.
- Hoffman, G. J., Lee, J., & Mendez-Luck, C. A. (2012). Health Behaviors among Baby Boomer Informal Caregivers. *Gerontologist, 52*(2), 219-230.
- Holtforth, M. G. (2008). Avoidance motivation in psychological problems and psychotherapy. *Psychotherapy Research: Journal Of The Society For Psychotherapy Research, 18*(2), 147-159, doi:10.1080/10503300701765849.
- Holtforth, M. G., Bents, H., Mauler, B., & Grawe, K. (2006). Interpersonal distress as a mediator between avoidance goals and goal satisfaction in psychotherapy inpatients. *Clinical Psychology & Psychotherapy, 13*(3), 172-182, doi:10.1002/cpp.486.
- Horowitz, L. (1979). On the cognitive structure of interpersonal problems treated in psychotherapy. *Journal of Consulting and Clinical Psychology, 47*(1), 5-15. doi:10.1037/0022-006X.47.1.5.
- Horowitz, L., Alden, L., Wiggins, J., & Pincus, A. (2000). *IIP, Inventory of Interpersonal Problems Manual*. San Antonio, TX: The Psychological Corporation.
- Horowitz, L., Rosenberg, S., Baer, B., Ureno, G., & Villasenor, V. (1988). Inventory of Interpersonal Problems: Psychometric Properties and Clinical Applications. *Journal of Consulting and Clinical Psychology, 56*(6), 885-892. doi:10.1037/0022-006X.56.6.885.

- Horowitz, L., Rosenberg, S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy. *Journal of Consulting and Clinical Psychology, 61*(4), 549-560. doi:10.1037/0022-006X.61.4.549.
- Horowitz, L., Wilson, K., Turan, B., Zolotsev, P., Constantino, M., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model. *Personality & Social Psychology Review, 10*(1), 67-86. doi:10.1207/s15327957pspr1001\_4.
- Hughes, N., Locock, L., & Ziebland, S. (2013). Personal identity and the role of 'carer' among relatives and friends of people with multiple sclerosis. *Social Science & Medicine, 96*, 78-85. doi:10.1016/j.socscimed.2013.07.023.
- Hussain, R., Wark, S., Dillon, G., & Ryan, P. (2016). 'Self-reported physical and mental health of Australian carers: A cross-sectional study', *BMJ Open, 6*(9): 1-10.
- IBM Corp. (2012). IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY.
- Inge, B. (1992). The Origins of Attachment Theory: John Bowlby and Mary Ainsworth. *Developmental Psychology, 28*(5), 759-775, doi:10.1037/0012-1649.28.5.759.
- Jans, L. S., & Kraus, L. (2004). *Chartbook on Mental Health and Disability in the United States. An Infolse Report*. National Institute on Disability and Rehabilitation Research.
- Jeon, Y., Brodaty, H., & Chesterson, J. (2005). Respite care for caregivers and people with severe mental illness: literature review. *Journal of Advanced Nursing, 49*(3), 297-306. doi:10.1111/j.1365-2648.2004.03287.x.
- Jeon, Y., & Madjar, I. (1998). Caring for a family member with chronic mental illness. *Qualitative Health Research, 8*(5), 694-706.
- Kabat-Zinn, J. (1994). *Wherever You Go, There You Are*. New York: Hyperion

- Karasawa, K. (2003). Interpersonal reactions toward depression and anger. *Cognition and Emotion, 17*(1), 123-138. doi:10.1080/02699930302274.
- Kartalova-O'Doherty, Y., & Doherty, D. T. (2008). Coping strategies and styles of family carers of persons with enduring mental illness: A mixed methods analysis. *Scandinavian Journal of Caring Sciences, 22*(1), 19-28. doi:10.1111/j.1471-6712.2007.00583.x.
- Kashdan, T. B., Goodman, F. R., Machell, K. A., Kleiman, E. M., Monfort, S. S., Ciarrochi, J., & Nezlek, J. B. (2014). A Contextual Approach to Experiential Avoidance and Social Anxiety: Evidence From an Experimental Interaction and Daily Interactions of People With Social Anxiety Disorder. *Emotion, 14*(4), 769-781. doi: 10.1037/a0035935.
- Kearney, D. J., McDermott, K., Malte, C., Martinez, M., & Simpson, T. L. (2012). Association of participation in a mindfulness program with measures of PTSD, depression and quality of life in a veteran sample. *Journal of Clinical Psychology, 68*(1), 101-116. doi:10.1002/jclp.20853.
- Kenny, P., King, M. T., & Hall, J. (2014). The physical functioning and mental health of informal carers: evidence of care-giving impacts from an Australian population-based cohort. *Health & Social Care In The Community, 22*(6), 646-659. doi:10.1111/hsc.12136
- Kiesler, D. J. (1983). The 1982 interpersonal circle: A taxonomy for complementarity in human transactions. *Psychological Review, 90*, 185-214. doi: 10.1037/0033-295X.90.3.185.
- Kim, H., Chang, M. D., Rose, K., & Kim, S. (2012). Predictors of caregiver burden in caregivers of individuals with dementia. *Journal of Advanced Nursing, 68*(4): 846-55. doi: 10.1111/j.1365-2648.2011.05787.x.

- Kızılırmak, B., & Küçük, L. (2016). Care Burden Level and Mental Health Condition of the Families of Individuals With Mental Disorders. *Archives of Psychiatric Nursing, 30*, 47-54. doi:10.1016/j.apnu.2015.10.004.
- Klimas, J. (2014). Correlates of interpersonal problems among current and former drug users in Slovakia, *Journal of Substance Use, 19*(3), 268-73.
- Kopta, S. M. (2003). The dose-effect relationship in psychotherapy: a defining achievement for Dr. Kenneth Howard. *Journal of Clinical Psychology, 59*(7), 727-733, doi: 10.1002/jclp.10167.
- Kyle, S., Melville, C. A., & Jones, A. (2010). Effective communication training interventions for paid carers supporting adults with learning disabilities. *British Journal of Learning Disabilities, 38*(3), 210-216. doi:10.1111/j.1468-3156.2009.00594.x.
- Laver, K., Milte, R., Dyer, S., & Crotty, M. (2016). A Systematic Review and Meta-Analysis Comparing Carer Focused and Dyadic Multicomponent Interventions for Carers of People With Dementia. *Journal Of Aging And Health, 29*(8), 1308-1349. <https://doi.org/10.1177/0898264316660414>.
- Lawn, S., & McMahon, J. (2014). The importance of relationship in understanding the experiences of spouse mental health carers. *Qualitative Health Research, 24*(2), 254-266. doi:10.1177/1049732313520078.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.
- Leary, T. (1957). *Interpersonal Diagnosis of Personality: A Functional Theory and Methodology for Personality Evaluation*. New York: Ronald Press.
- Leary, T. (1996). Interpersonal circumplex. *Journal of Personality Assessment, 66*(2), 301.
- Lee, D. L., Harkless, L. E., Sheridan, D. J., Winakur, E., & Fowers, B. J. (2013). Sex Differences in Interpersonal Problems: Does Sexual Orientation Moderate?, *Journal of Psychology, 147*(1), 75-87.

- Leoni, M., Corti, S., Cavagnola, R., Healy, O., & Noone, S. J. (2016). How acceptance and commitment therapy changed the perspective on support provision for staff working with intellectual disability. *Advances in Mental Health and Intellectual Disabilities*(1), 59-73, doi:10.1108/AMHID-09-2015-0046.
- Lev, A. (2011). *A new group therapy protocol combining acceptance and commitment therapy (ACT) and Schema Therapy in the treatment of interpersonal disorders: A randomized controlled trial*. PhD (Doctor of Philosophy) thesis, Wright Institute, Berkeley, CA.
- Li, G., Yuan, H., & Zhang, W. (2016). The effects of mindfulness-based stress reduction for family caregivers: Systematic review. *Archives of Psychiatric Nursing*, 30(2), 292-299, doi:10.1016/j.apnu.2015.08.014.
- Lillis, J., Levin, M. E., & Hayes, S. C. (2011). Exploring the relationship between body mass index and health-related quality of life: A pilot study of the impact of weight self-stigma and experiential avoidance. *Journal of Health Psychology*, 16(5), 722-727, doi:10.1177/1359105310388321.
- Lindstrom, K. B., & Melnyk, B. M. (2013). Feasibility and preliminary effects of an intervention targeting schema development for caregivers of newly admitted hospice patients. *Journal of Palliative Medicine*, 16(6), 680-685, doi:10.1089/jpm.2012.0198.
- Lloyd, J., Patterson, T., & Muers, J. (2016). The positive aspects of caregiving in dementia: A critical review of the qualitative literature. *Dementia*, 15(6), 1534-1561. doi:10.1177/1471301214564792
- Lloyd, M., & Carson, A. (2005). Culture shift: Carer empowerment and cooperative inquiry. *Journal of Psychiatric and Mental Health Nursing*, 12(2), 187-191. doi:10.1111/j.1365-2850.2004.00816.x.

- Locke, K. D., Sayegh, L., Penberthy, J. K., Weber, C., Haentjens, K., & Turecki, G. (2017). Interpersonal circumplex profiles of persistent depression: Goals, self-efficacy, problems, and effects of group therapy, *Journal of Clinical Psychology, 73*(6), 595-611.
- Losada, A., Márquez-González, M., Romero-Moreno, R., & López, J. (2014). Development and validation of the Experiential Avoidance in Caregiving Questionnaire (EACQ). *Aging and Mental Health, 18*(7), 897-904. doi:10.1080/13607863.2014.896868.
- Losada, A., Márquez-González, M., Romero-Moreno, R., López, J., Fernández-Fernández, V., & Nogales-González, C. (2015a). Cognitive behavioral therapy (CBT) versus acceptance and commitment therapy (ACT) for dementia family caregivers: follow-up results of a randomized clinical trial. *European Geriatric Medicine, 5*, S46. doi:10.1016/S1878-7649(14)70088-9.
- Losada, A., Márquez-González, M., Romero-Moreno, R., López, J., Fernández-Fernández, V., & Nogales-González, C. (2015b). Attending to dementia caregivers diverse needs: Contributions from cognitive behavioral therapy and acceptance and commitment therapy. *Clínica y Salud, 26*(1), 41-48, doi:10.1016/j.clysa.2015.02.001.
- Luborsky, L. (1984). *Principles of psychoanalytic psychotherapy : a manual for supportive-expressive treatment / Lester Luborsky*: New York : Basic Books, c1984.
- Luborsky, L., & Crits-Christoph, P. (1998). *Understanding transference : the core conflictual relationship theme method / Lester Luborsky, Paul Crits-Christoph* (2nd ed.): Washington, DC : American Psychological Association, c1998.
- Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., Bunting, K., & Rye, A. K. (2008). Reducing self-stigma in substance abuse through acceptance and commitment therapy: Model, manual development, and pilot outcomes. *Addiction Research and Theory, 16*(2), 149-165. doi:10.1080/16066350701850295.

- Mackay, C., & Pakenham, K. (2012). A Stress and Coping Model of Adjustment to Caring for an Adult with Mental Illness. *Community Mental Health Journal*, 48(4), 450-462. doi:10.1007/s10597-011-9435-4.
- Mandavia, A., Masuda, A., Moore, M., Mendoza, H., Donati, M. R., & Cohen, L. L. (2015). Empirical Research: The application of a cognitive defusion technique to negative body image thoughts: A preliminary analogue investigation. *Journal of Contextual Behavioral Science*, 4, 86-95, doi:10.1016/j.jcbs.2015.02.003.
- Manne, S. L., Ostroff, J. S., Norton, T. R., Fox, K., Goldstein, L., & Grana, G. (2006). Cancer-related relationship communication in couples coping with early stage breast cancer. *Psycho-Oncology*, 15(3), 234-247. doi:10.1002/pon.941.
- Marmarosh, C. L., & Tasca, G. A. (2013). Adult attachment anxiety: using group therapy to promote change. *Journal of Clinical Psychology*, 69(11), 1172-1182. doi:10.1002/jclp.22044.
- Martens, L., & Addington, J. (2001). The psychological well-being of family members of individuals with schizophrenia. *Social Psychiatry and Psychiatric Epidemiology*, 36(3), 128-133.
- Masuda, A., Twohig, M. P., Stormo, A. R., Feinstein, A. B., Chou, Y.-Y., & Wendell, J. W. (2010). The effects of cognitive defusion and thought distraction on emotional discomfort and believability of negative self-referential thoughts. *Journal of Behavior Therapy and Experimental Psychiatry*, 41, 11-17, doi:10.1016/j.jbtep.2009.08.006.
- McBride, J. L. (2016). Family Physician Support for a Family With a Mentally Ill Member. *Annals Of Family Medicine*, 14(5), 460-462. doi:10.1370/afm.1969.



- McCann, T. V., Songprakun, W., & Stephenson, J. (2015). A randomized controlled trial of guided self-help for improving the experience of caring for carers of clients with depression. *Journal of Advanced Nursing*, *71*(7), 1600-1610. doi:10.1111/jan.12624.
- McConachie, D. A. J., McKenzie, K., Morris, P. G., & Walley, R. M. (2014). Acceptance and mindfulness-based stress management for support staff caring for individuals with intellectual disabilities. *Research in Developmental Disabilities*, *35*(6), 1216-1227, doi:10.1016/j.ridd.2014.03.005.
- McIlrae, S., Wilkes, E., Downey, M., & Colley, M. (2010). A cognitive behavioural approach for carers of significant others with depression: a pilot study. *The Journal of Mental Health Training, Education and Practice*, *1*(28). doi:10.5042/jmhtep.2010.0217.
- McKay, M., Lev, A., & Skeen, M. (2012). *Acceptance and Commitment Therapy for Interpersonal Problems: Using Mindfulness, Acceptance, and Schema Awareness to Change Interpersonal Behaviors*: New Harbinger Publications.
- McMahon, J., Hardy, J., & Carson, R. (2007). *Identifying the carer project. Final report and recommendations for the Commonwealth Department of Health and Ageing*. Retrieved January 10 2018 from:  
<http://www.health.gov.au/internet/publications/publishing.nsf/Content/pub-sqps-carers-toc>.
- Miller, S. D., Duncan, B. L., Brown, J., Sparks, J., & Claud, D. (2003). The Outcome Rating Scale: A preliminary study of the reliability, validity, and feasibility of a brief visual analog measure. *Journal of Brief Therapy*, *2*, 91-100.
- Moore, T., & McArthur, M. (2007). We're all in it together: supporting young carers and their families in Australia. *Health & Social Care in the Community*, *15*(6), 561-568, doi: 10.1111/j.1365-2524.2007.00719.x.

- Nelis, S. M., Clare, L., & Whitaker, C. J. (2012). Attachment representations in people with dementia and their carers: Implications for well-being within the dyad. *Aging and Mental Health, 16*(7), 845-854. doi:10.1080/13607863.2012.667779.
- Neudeck, P., & Wittchen, H. U. (2012). *Exposure Therapy: Rethinking the Model - Refining the Method*. New York: Springer.
- Newman, M. G., Jacobson, N. C., Erickson, T. M., & Fisher, A. J. (2017). Interpersonal Problems Predict Differential Response to Cognitive Versus Behavioral Treatment in a Randomized Controlled Trial. *Behavior Therapy, 48*, 56-68. doi:10.1016/j.beth.2016.05.005.
- Noone, S., & Hastings, R. (2010). Using Acceptance and Mindfulness-Based Workshops with Support Staff Caring for Adults with Intellectual Disabilities. *Mindfulness, 1*(2), 67-73, doi:10.1007/s12671-010-0007-4.
- Noone, S., & Hastings, R. (2011). Values and Psychological Acceptance as Correlates of Burnout in Support Staff Working With Adults With Intellectual Disabilities. *Journal of Mental Health Research in Intellectual Disabilities, 4*(2), 79-89, doi:10.1080/19315864.2011.582230.
- Olatunji, B. O., Davis, M. L., Powers, M. B., & Smits, J. A. J. (2013). Cognitive-behavioral therapy for obsessive-compulsive disorder: A meta-analysis of treatment outcome and moderators. *Journal of Psychiatric Research, 47*(1), 33-41. doi:10.1016/j.jpsychires.2012.08.020.
- Onwumere, J., Kuipers, E., Garety, P., Bebbington, P., Dunn, G., Freeman, D., & Fowler, D. (2011). Coping styles in carers of people with recent and long-term psychosis. *Journal of Nervous and Mental Disease, 199*(6), 423-424. doi:10.1097/NMD.0b013e31821ccb07.

- Orsillo, S. M., Roemer, L., & Barlow, D. H. (2003). Integrating acceptance and mindfulness into existing cognitive-behavioral treatment for GAD: A case study. *Cognitive and Behavioral Practice, 10*(3), 222-230. doi:10.1016/S1077-7229(03)80034-2.
- Östman, M., & Kjellin, L. (2002). Stigma by association: Psychological factors in relatives of people with mental illness. *The British Journal of Psychiatry, 181*(6), 494-498. doi:10.1192/bjp.181.6.494.
- Ougrin, D. (2011). Efficacy of exposure versus cognitive therapy in anxiety disorders: systematic review and meta-analysis. *BMC Psychiatry, 11*. doi:https://doi.org/10.1186/1471-244X-11-200.
- Oyebode, J. (2003). Assessment of carers' psychological needs. *Advances in Psychiatric Treatment, 9*(1), 45-53. doi:10.1192/apt.9.1.45.
- Pampani Borgo, E., de Abreu Ramos-Cerqueira, A., Torres, A., Borgo, E., & Ramos-Cerqueira, A. (2017). Burden and Distress in Caregivers of Patients With Panic Disorder and Agoraphobia. *Journal of Nervous & Mental Disease, 205*(1), 23-30. doi:10.1097/NMD.0000000000000614.
- Penning, M. J., & Zheng, W. (2016). Caregiver stress and mental health: Impact of caregiving relationship and gender. *Gerontologist, 56*(6), 1102-1113. doi:10.1093/geront/gnv038.
- Pincus, A. L., & Wiggins, J. S. (1990). Interpersonal problems and conceptions of personality disorders. *Journal of Personality Disorders, 4*(4), 342-352.
- Pinquart, M., & Sorensen, S. (2003). Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: A meta-analysis. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences, 58*(2), P112-P128.

- Pinquart, M., & Sörensen, S. (2006). Helping caregivers of persons with dementia: Which interventions work and how large are their effects? *International Psychogeriatrics*, *18*(4), 577-595, doi:10.1017/S1041610206003462.
- Pot, A. M., Deeg, J. H., & Van Dyck, R. (1997). Psychological well-being of informal caregivers of elderly people with dementia: changes over time. *Aging and Mental Health*, *1*(3), 261-268.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879-891. doi:DOI: 10.3758/BRM.40.3.879.
- Puschner, B., Bauer, S., Horowitz, L. M., & Kordy, H. (2005). The relationship between interpersonal problems and the helping alliance, *Journal of Clinical Psychology*, *61*(4), 415-29.
- Quinlan, E., Deane, F. P., & Crowe, T. (2018a). Interpersonal Problems amongst Mental Health Carers: A qualitative study. *Social Work in Mental Health*. doi: 10.1080/15332985.2018.1445062.
- Quinlan, E., Deane, F. P., Crowe, T. (2018b). Profiles of Interpersonal Problems in Mental Health Carers. *Manuscript submitted for publication*.
- Quinlan, E., Deane, F. P., Crowe, T. (2018c). Pilot of an Acceptance and Commitment Therapy and Schema group intervention for Mental Health Carer's Interpersonal Problems. *Manuscript submitted for publication*.
- Quinlan, E., Deane, F. P., Crowe, T., & Caputi, P. (2018). Do attachment anxiety and hostility mediate the relationship between experiential avoidance and interpersonal problems in mental health carers? *Journal of Contextual Behavioral Science*. <https://doi.org/10.1016/j.jcbs.2018.01.003>.

- Rayan, A., & Ahmad, M. (2017). Mindfulness and parenting distress among parents of children with disabilities: A literature review. *Perspectives in Psychiatric Care, 1*, 1-7, doi:10.1111/ppc.12217.
- Reddy, M. K., Meis, L. A., Erbes, C. R., Polusny, M. A., & Compton, J. S. (2011). Associations among experiential avoidance, couple adjustment, and interpersonal aggression in returning Iraqi war veterans and their partners. *Journal of Consulting and Clinical Psychology, 79*(4), 515-520. doi:10.1037/a0023929.
- Reinares, M., Vieta, E., Colom, F., Martínez-Arán, A., Torrent, C., Comes, M., . . . Sánchez-Moreno, J. (2006). What really matters to bipolar patients' caregivers: Sources of family burden. *Journal of Affective Disorders, 94*, 157-163. doi:10.1016/j.jad.2006.04.022.
- Renner, F., Jarrett, R. B., Vittengl, J. R., Barrett, M. S., Clark, L. A., & Thase, M. E. (2012). Interpersonal problems as predictors of therapeutic alliance and symptom improvement in cognitive therapy for depression. *Journal of Affective Disorders, 138*(3), 458-467, doi:10.1016/j.jad.2011.12.044.
- Richard, D. C. S., & Lauterbach, D. (2011). *Handbook of Exposure Therapies*. Academic Press.
- Roemer, L., Williston, S. K., Eustis, E. H., & Orsillo, S. M. (2013). Mindfulness and acceptance-based behavioral therapies for anxiety disorders. *Current Psychiatry Reports, 15*(11).
- Romero-Moreno, R., Losada, A., Márquez-González, M., & Mausbach, B. T. (2016). Stressors and anxiety in dementia caregiving: Multiple mediation analysis of rumination, experiential avoidance, and leisure. *International Psychogeriatrics, 28*(11), 1835-1844. doi:10.1017/S1041610216001009.

- Rosenthal, G., & Fischer-Rosenthal, W. (2004). The analysis of narrative-biographical interviews. In U. Flick, E. v. Kardorff, & I. Steinke (Eds.), *A Companion to Qualitative Research*: London ; Thousand Oaks, Calif. : Sage Publications, 2004.
- Ross, A. S., Hinshaw, A. B., & Murdock, N. L. (2016). Integrating the Relational Matrix: Attachment Style, Differentiation of Self, Triangulation, and Experiential Avoidance. *Contemporary Family Therapy*, 38(4), 400-411. doi:10.1007/s10591-016-9395-5
- Rowe, J. (2012). Great expectations: A systematic review of the literature on the role of family carers in severe mental illness, and their relationships and engagement with professionals. *Journal of Psychiatric and Mental Health Nursing*, 19(1), 70-82. doi:10.1111/j.1365-2850.2011.01756.x.
- Sadath, A., Muralidhar, D., Varambally, S., & Gangadhar, B. N. (2017). Does group intervention have benefits on expressed emotion and social support in carers of persons with first episode psychosis? *Social Work in Mental Health*, 1-14, doi:10.1080/15332985.2016.1252826.
- Sadler, E., & McKeivitt, C. (2013). 'Expert carers': An emergent normative model of the caregiver. *Social Theory & Health*, 11(1), 40-58. doi:http://dx.doi.org/10.1057/sth.2012.17.
- Salzer, S., Streeck, U., Jaeger, U., Masuhr, O., Warwas, J., Leichsenring, F., & Leibing, E. (2013). Patterns of Interpersonal Problems in Borderline Personality Disorder, *Journal of Nervous and Mental Disease*, 201(2), 94-8.
- Salzer, S., Winkelbach, C., Leibing, E., Pincus, A. L., & Leichsenring, F. (2011). Interpersonal subtypes and change of interpersonal problems in the treatment of patients with generalized anxiety disorder: A pilot study. *Psychotherapy*, 48(3), 304-310, doi:10.1037/a0022013.

- Saunders, J. C. (2003). Families living with severe mental illness: A literature review. *Issues in Mental Health Nursing, 24*(2), 175-198. doi:10.1080/01612840305301
- Savage, S. (2002). *An overview of the literature on sustaining caring relationships*. Australian Capitol Territory: Deakin University and Department of Human Services.
- Schmalz, J. E., & Murrell, A. R. (2010). Measuring Experiential Avoidance in Adults: The Avoidance and Fusion Questionnaire. *International Journal of Behavioral Consultation and Therapy, 6*(3), 198-213. doi: 10.1037/h0100908.
- Scott, J. L., Dawkins, S., Quinn, M. G., Sanderson, K., Elliott, K. J., Stirling, C ... Robinson, A. (2016). Caring for the carer: A systematic review of pure technology-based cognitive behavioral therapy (TB-CBT) interventions for dementia carers. *Aging and Mental Health, 20*(8), 793-803, doi:10.1080/13607863.2015.1040724.
- Scott, W. D., Ingram, R. E., & Shadel, W. G. (2003). Hostile and sad moods in dysphoria: Evidence for cognitive specificity in attributions. *Journal of Social and Clinical Psychology, 22*(3), 233-252. doi: 10.1521/jscp.22.3.233.22892.
- Seedall, R. B., & Wampler, K. S. (2016). Couple emotional experience: Effects of attachment anxiety in low and high structure couple interactions. *Journal of Family Therapy, 38*(3), 340-363. doi:10.1111/1467-6427.12113.
- Sellwood, W., Barrowclough, C., Tarrier, N., Quinn, J., Mainwaring, J., & Lewis, S. (2001). Needs-based cognitive-behavioural family intervention for carers of patients suffering from schizophrenia: 12-month follow-up. *Acta Psychiatrica Scandinavica, 104*(5), 346-355. doi:10.1034/j.1600-0447.2001.00502.x.
- Snell, W. E. (1998). The Relationship Awareness Scale: Measuring relational-consciousness, relational-monitoring, and relational-anxiety. *Contemporary Social Psychology, 18*, 23-49.

- Spector, A., Charlesworth, G., Orrell, M., & Marston, L. (2016). Factors influencing the person–carer relationship in people with anxiety and dementia. *Aging and Mental Health, 20*(10), 1055-1062. doi:10.1080/13607863.2015.1063104.
- Spijker, A., Vernooij-Dassen, M., Vasse, E., Wollersheim, H., Grol, R., Adang, E., & Verhey, F. (2008). Effectiveness of nonpharmacological interventions in delaying the institutionalization of patients with dementia: A meta-analysis. *Journal of the American Geriatrics Society, 56*(6), 1116-1128. doi:10.1111/j.1532-5415.2008.01705.x.
- Spira, A. P., Beaudreau, S. A., Jimenez, D., Kierod, K., Cusing, M. M., Gray, H. L., & Gallagher-Thompson, D. (2007). Experiential avoidance, acceptance, and depression in dementia family caregivers. *Clinical Gerontologist, 30*(4), 55-64.
- Sprung, S., & Laing, M. (2017). Young carer awareness, identification and referral. *British Journal Of Community Nursing, 22*(8), 398-406. doi:10.12968/bjcn.2017.22.8.398.
- Spruytte, N., Van Audenhove, C., & Lammertyn, F. (2001). Predictors of institutionalization of cognitively-impaired elderly cared for by their relatives. *International Journal of Geriatric Psychiatry, 16*(12), 1119-1128. doi:10/1002/gps.484.
- Spruytte, N., Van Audenhove, C., Lammertyn, F., & Storms, G. (2002). The quality of the caregiving relationship in informal care for older adults with dementia and chronic psychiatric patients. *Psychology and Psychotherapy: Theory, Research and Practice, 75*(3), 295-311. doi:10.1348/147608302320365208.
- Stulz, N., Lutz, W., Kopta, S. M., Minami, T., & Saunders, S. M. (2013). Dose–effect relationship in routine outpatient psychotherapy: Does treatment duration matter? *Journal of Counseling Psychology, 60*(4), 593-600, doi:10.1037/a003358910.1037/a0033589.supp.



- Sugihara, Y., Sugisawa, H., Nakatani, Y., & Shibata, H. (1998). Impact of duration of caregiving on stress among primary caregivers of elderly. [Nippon kōshū eisei zasshi] *Japanese journal of public health*, 45(4), 320-335.
- Sullivan, H. S. (1953). *The Interpersonal Theory of Psychiatry*. New York: Norton.
- Suro, G., & de Mamani, A. G. W. (2013). Burden, interdependence, ethnicity, and mental health in caregivers of patients with schizophrenia. *Family Process*, 52(2), 299-311. doi:10.1111/famp.12002.
- Swan, R. W., & Lavitt, M. (1988). Patterns of Adjustment to Violence in Families of the Mentally Ill. *Journal of Interpersonal Violence*, 3(1), 42-54. doi:10.1177/088626088003001004.
- Tanay, G., Lotan, G., & Bernstein, A. (2012). Salutary Proximal Processes and Distal Mood and Anxiety Vulnerability Outcomes of Mindfulness Training: A Pilot Preventive Intervention. *Behavior Therapy*, 43(3), 492-505. doi:10.1016/j.beth.2011.06.003.
- Taylor, C. J., Bee, P., & Haddock, G. (2017). Does schema therapy change schemas and symptoms? A systematic review across mental health disorders. *Psychology And Psychotherapy-Theory Research And Practice*, 90(3), 456-479.
- Thimm, J. C. (2013). Early maladaptive schemas and interpersonal problems: A circumplex analysis of the YSQ-SF. *International Journal of Psychology & Psychological Therapy*, 13(1), 113-124.
- Townsend, A., Noelker, L., Deimling, G., & Bass, D. (1989). Longitudinal impact of interhousehold caregiving on adult children's mental health, *Psychology and Aging*, 4(4), 393-401.
- Ulstein, I., Wyller, T. B., & Engedal, K. (2008). Correlates of intrusion and avoidance as stress response symptoms in family carers of patients suffering from dementia.

*International Journal of Geriatric Psychiatry*, 23(10), 1051-1057.

doi:10.1002/gps.2032.

- Ussher, J. M., Wong, W. K. T., & Perz, J. (2011). A qualitative analysis of changes in relationship dynamics and roles between people with cancer and their primary informal carer. *Health*, 15(6), 650-667. doi:10.1177/1363459310367440.
- van der Lee, J., Bakker, T. M., Duivenvoorden, H. J., & Droes, R. (2014). Multivariate models of subjective caregiver burden in dementia: A systematic review. *Ageing Research Reviews*, 1576-93. doi: 10.1016/j.arr.2014.03.003
- van Teijlingen Edwin, R., & Lowit, A. (2005). Avoidance as a strategy of (not) coping: qualitative interviews with carers of Huntington's Disease patients. *BMC Family Practice*, Vol 6, Iss 1, p 38 (2005)(1), 38. doi:10.1186/1471-2296-6-38.
- Varghese, A., Khakha, D. C., & Chadda, R. K. (2016). Pattern and Type of Aggressive Behavior in Patients with Severe Mental Illness as Perceived by the Caregivers and the Coping Strategies Used by Them in a Tertiary Care Hospital. *Archives of Psychiatric Nursing*, 30, 62-69. doi:10.1016/j.apnu.2015.10.002.
- Vaughan-Johnston, T. I., Quickert, R. E., & MacDonald, T. K. (2017). Psychological flexibility under fire: Testing the incremental validity of experiential avoidance. *Personality and Individual Differences*, 105, 335-349. doi:10.1016/j.paid.2016.10.011.
- Vernooij-Dassen, M. J. F. J., Draskovic, I., Vernooij-Dassen, M., Draskovic, I., McCleery, J., & Downs, M. (2011). Cognitive reframing for carers of people with dementia. *Cochrane Database of Systematic Reviews*, 11. doi: 10.1002/14651858.CD005318.pub2.

- Wadham, O., Simpson, J., Rust, J., & Murray, C. (2016). Couples' shared experiences of dementia: A meta-synthesis of the impact upon relationships and couplehood. *Aging and Mental Health*, 20(5), 463-473. doi:10.1080/13607863.2015.1023769.
- Wasley, D., & Eden, S. (2017). Predicting psychological distress of informal carers of individuals with major depression or bipolar disorder. *International Journal of Mental Health Nursing*, 27(1), 358-367. doi:10.1111/inm.12329.
- Weber-Raley, L. (2016). *On Pins and Needles: Caregivers of Adults with Mental Illness*. National Alliance for Caregiving.
- Weinrib, A. Z. (2011). *Investigating experiential avoidance as a mechanism of action in a mindfulness intervention*. PhD (Doctor of Philosophy) thesis, UMI No. 3461426, University of Iowa.
- Wenzel, A. (2017). Basic Strategies of Cognitive Behavioral Therapy. *Psychiatric clinics of north america*, 40(4), 597.
- Wiggins, J. S. (1996). An Informal History of the Interpersonal Circumplex Tradition. *Journal of Personality Assessment*, 66(2), 217-233. doi:10.1207/s15327752jpa6602\_2.
- Wilkinson, C., & McAndrew, S. (2008). 'I'm not an outsider, I'm his mother!' A phenomenological enquiry into carer experiences of exclusion from acute psychiatric settings. *International Journal of Mental Health Nursing*, 17(6), 392-401. doi:10.1111/j.1447-0349.2008.00574.x.
- Wilkowski, B. M., Crowe, S. E., & Ferguson, E. L. (2015). Learning to keep your cool: Reducing aggression through the experimental modification of cognitive control. *Cognition and Emotion*, 29(2), 251-265. doi:10.1080/02699931.2014.911146.
- Williams, J. C., & Lynn, S. J. (2010). Acceptance: An historical and conceptual review. *Imagination, Cognition and Personality*, 30(1), 5-56, doi:10.2190/IC.30.1.c.

- Williams, S., Dagnan, D., Rodgers, J., & Freeston, M. (2015). Exploring carers' judgements of responsibility and control in response to the challenging behaviour of people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 28(6), 589-593. doi:10.1111/jar.12146.
- Wilson, S., Revelle, W., Stroud, C. B., & Durbin, C. E. (2013). A confirmatory bifactor analysis of the Inventory of Interpersonal Problems--Circumplex and associations of interpersonal traits across multiple relationship contexts and measures, *Psychological Assessment*, 25(2), 353-65.
- Wynaden, D. (2007). The experience of caring for a person with a mental illness: A grounded theory study. *International Journal of Mental Health Nursing*, 16(6), 381-389. doi:10.1111/j.1447-0349.2007.00493.x.
- Yates, B. C., Park, E. O., Hug, A., Kupzyk, K. A., & Skradski, S. K. (2018). Changes over time in caregiving demand and difficulty in spousal caregivers of coronary artery bypass graft surgery patients. *Applied Nursing Research*, 39, 1-3. doi:10.1016/j.apnr.2017.09.011.
- Yesufu-Udechuku, A., Harrison, B., Mayo-Wilson, E., Young, N., Woodhams, P., Shiers, D ... Kendall, T. (2015). Interventions to improve the experience of caring for people with severe mental illness: Systematic review and meta-analysis. *British Journal of Psychiatry*, 206(4), 268-274, doi:10.1192/bjp.bp.114.147561.
- Young, J., Klosko, J., & Weishaar, M. (2006). *Schema Therapy: A Practitioner's Guide*: Guilford Publications.
- Young, T. J., Manthorp, C., Howells, D., & Tullo, E. (2011). Developing a carer communication intervention to support personhood and quality of life in dementia. *Ageing and Society*, 31, 1003-1025, doi:10.1017/S0144686X10001182.

- Zainuddin, J., & Arokiasamy, J. T. (2003). Caregiving Burden is Associated with Short rather than Long Duration of Care for Older Persons. *Asia-Pacific Journal of Public Health*, 15(2), 88-93. doi:10.1177/101053950301500203.
- Zauszniewski, J. A., Bekhet, A. K., & Suresky, M. J. (2009). Effects on Resilience of Women Family Caregivers of Adults With Serious Mental Illness: The Role of Positive Cognitions. *Archives of Psychiatric Nursing*, 23, 412-422. doi:10.1016/j.apnu.2008.12.004.
- Zettle, R. (2003). Acceptance and commitment therapy (ACT) vs. systematic desensitization in treatment of mathematics anxiety. *Psychological Record*, 53(2), 197-215.

# APPENDICES

## Appendix A: Article based on Study 1



Social Work in Mental Health



ISSN: 1533-2985 (Print) 1533-2993 (Online) Journal homepage: <http://www.tandfonline.com/loi/wsmh20>

---

### Interpersonal problems amongst mental health carers: a qualitative study

Elly Quinlan, Frank Deane & Trevor Crowe

To cite this article: Elly Quinlan, Frank Deane & Trevor Crowe (2018): Interpersonal problems amongst mental health carers: a qualitative study, *Social Work in Mental Health*, DOI: [10.1080/15332985.2018.1445062](https://doi.org/10.1080/15332985.2018.1445062)

To link to this article: <https://doi.org/10.1080/15332985.2018.1445062>



Accepted author version posted online: 23 Feb 2018.



[Submit your article to this journal](#)



[View related articles](#)



[View Crossmark data](#)

Full Terms & Conditions of access and use can be found at  
<http://www.tandfonline.com/action/journalInformation?journalCode=wsmh20>

## Introduction

The term ‘carer’ refers to any person who provides regular unpaid support to another person experiencing illness or disability, which may, for example, be associated with physical, intellectual or psychosocial disability, mental illness, or ageing. This paper will focus on a specific subset of the carer population- those “lay carers” who provide caring for a loved one experiencing mental illness. Mental health carers have a role that is inherently different to other caring contexts: unpredictable, episodic and demanding a high degree of flexibility and responsiveness from the carer (Broady & Stone, 2015). The trajectory of mental health for the person with mental illness fluctuates between unwellness and recovery and can include significant functional impairments, periods of hospitalisation, and the need for medication (Jans & Kraus, 2004). Moreover, mental health carers own coping and wellbeing fluctuates alongside the care receiver; with carers experiencing cycles of negative affect, burnout, and worry about the wellbeing of their care receiver (Jeon, Brodaty, & Chesterson, 2005; Jeon & Madjar, 1998). The negative impact of this role is substantiated in the literature.

There are varying definitions as to the role of a mental health carer. For example, the NSW Carers Recognition Act (2010) defines a mental health carer as ‘an individual who provides ongoing personal care, support and assistance to any other individual who needs it because that individual has a mental illness’ (p. 4). Common to all definitions of mental health caregiving is the interconnection between two people. This connection may be that of a parent, sibling, adult child, other relative, partner, friend, etc. The definition of ‘mental health carer’ remains a point of contention, with some carers voicing concerns that the term unnecessarily professionalises their relationship. For many mental health carers their caring role is conceptualised as an extension of their existing relationship, e.g. ‘I’m not a carer, I’m a mother’, (Jeanette Henderson, 2001). A common criticism of the ‘carer’ definition is that it focuses on practical tasks associated with the role, with the interpersonal component overlooked (J. Henderson & Forbat, 2002; Sadler & McKevitt, 2013). In response to these observations, there has been a push for the recognition of the interpersonal aspects of mental health caregiving within Australian social policy and the carer research literature.

Australian social policy has seen a shift in focus towards recognising and supporting mental health carer relationships. In 2006 the Victorian Government explicitly prioritised the carer relationship through the ‘Recognising and supporting carer relationships’ policy framework (Department of Human Services, 2006). The policy emphasises the importance of current relationship dynamics, relational history and reciprocity in understanding the carer role. The NSW Carers Charter (Carers Recognition Act, 2010) outlines thirteen principles to guide work with carers, one of which states ‘the relationship between carers and the person for whom they care should be respected’ (p. 6). These policies reflect a move away from simply considering individuals in isolation.

The literature on mental health caregiving has primarily focused on the themes of individual carer needs and carer burden, with Penning, Wu and Zheng (2016) noting that limited attention has been directed towards the implications of the carer relationship for an understanding of carer outcomes. Chattoo and Ahmad (2008) suggest this represents a theoretical bias towards a dichotomous notion of caregiving- with the separate emphasis on the ‘carer’ and ‘person needing care’ limiting our understanding of the carer dyad as an interrelated process.

In light of growing consensus that models of stress and coping need to incorporate a relational perspective (Kayser, Watson, & Andrade, 2007), the last decade has seen an increased focus on the complex interpersonal patterns that exist between carers and care receivers. As work in this field is emerging, little research has been specific to mental health carers. Notable examples within the broader carer field include exploration of relationship dynamics and role changes within cancer care dyads (Ussher, Wong, & Perz, 2011), the



interpersonal experiences of caring for a mentally unwell spouse (Lawn & McMahon, 2014), the interpersonal experiences and sense of couplehood within spouse dementia carer dyads (Wadham, Simpson, Rust, & Murray, 2016), and attachment patterns within dementia carer dyads (Nelis, Clare, & Whitaker, 2012). Our understanding of the unique interpersonal qualities of mental health carer dyads remains an area for further investigation.

It makes intuitive sense that mental health carers are affected by the relationship with the person for whom they provide care. The nature of this relationship undergoes significant changes as the caregiving role is initiated, with the balance of power changing as the parties become the 'caregiver and the care receiver' (Oyebode, 2003). During this adjustment time the new relationship, its boundaries and expectations need to be navigated. These changes can result in a form of 'complicated grief' where the mental health carer holds ambivalent feelings towards the care receiver and is left with a sense of betrayal or loss in that the person they once knew is changed, as is the imagined future for, and with, that person (Campling & Jones, 2001). Such feelings and ambivalence, along with changed roles, can be a source of interpersonal problems for the mental health carer to navigate.

The quality of relationship between the carer and care receiver has a direct influence on caregiver coping and whether continued care is provided (Nele Spruytte, Van Audenhove, & Lammertyn, 2001). The protective benefits of positive carer/care receiver relationships have been indicated across numerous studies, with connection and attunement linked to carer coping and resiliency (Wadham et al., 2016), intimacy and love associated with lower levels of carer psychotic symptoms and burden (Braithwaite, 2000), and positive ratings of the relationship associated with lower levels of carer stress and depression (Oyebode, 2003). A challenge for mental health carers is maintaining quality relationships in the context of a care role that can be chaotic and unpredictable, and that brings with it a unique set of interpersonal problems to navigate.

Interpersonal problems have been defined as difficulties encountered when interacting, or attempting to interact, with others (Horowitz, Rosenberg, & Bartholomew, 1993). Work in the field of interpersonal problems is often grounded in Interpersonal Theory (Sullivan, 1953). Interpersonal theory is based on the assumption that one should focus on interpersonal processes in order to understand pathological behaviour (Horowitz et al., 2006; Leary, 2004; Sullivan, 1953). Interpersonal processes are described as existing along two principal dimensions: affiliation, which ranges from hostile behaviour to friendly behaviour; and control, which ranges from submissive behaviour to dominating behaviour (Alden, Wiggins, & Pincus, 1990).

Interpersonal theory posits that interpersonal situations- in this case the caregiving role- exist in dynamic "recurrent patterns" (Sullivan, 1953, p. 111). From an interpersonal perspective, the emphasis is not on what someone is (i.e., a 'carer' or 'care receiver') but rather on what someone does. It is in these interactions- involving what carers and care receivers do with each other- where dysfunction and problems are most poignantly expressed (Pincus & Wiggins, 1990).

Work on understanding and classifying interpersonal problems has been pioneered by Horowitz (Horowitz, 1979; Horowitz, Alden, Wiggins, & Pincus, 2000; Horowitz et al., 2006). To develop a framework of interpersonal problems, Horowitz (1979) recorded intake interviews of clients presenting for psychotherapy. Two observers recorded statements of interpersonal problems made by these individuals, resulting in 127 problems that manifested in two ways. Firstly, behaviour one consistently finds 'hard to do'- inhibitions or skill deficits that are often expressed as 'it is hard for me to do X' or 'I can't do Y'. Secondly, behaviours one 'does too much'- excesses or compulsions often expressed as 'I do X too much' or 'I can't stop doing X' (Horowitz, 1979; Gurtman, 1992; Horowitz et al., 2000).

The purpose of this study was to explore mental health carers accounts of interpersonal problems within their caring relationship. Grounded in Horowitz's (Horowitz, 1979) conceptualisation of interpersonal problems, this study explored which behaviours carers 'find hard to do' and those behaviours carers perceive they 'do too much' in their caring relationship. Our research question was 'What are mental health carers experiences of interpersonal problems within their relationship with the care-receiver?'. This was an exploratory study, in a topic area with little previous work. Our chosen methodology was thematic analysis, with data collected via semi-structured interviews with mental health carers. This study was approved by the University of Wollongong ethics committee.

## **Method**

### ***Participants***

Participants met the following inclusion criteria: a) 18 years or older, b) self-identify as a carer of someone with a mental health disorder, c) self-identify as experiencing relationship difficulties with the person they provide care for. Recruitment took place across three carer support agencies between 2015 and 2017 and targeted mental health carers on the waiting list for relationship support programs. Staff members explained the purpose of the study and asked for permission to pass on contact information to the researchers, who then made contact to provide further information, answer questions about the study, and organise the practicalities of the interview. All interviews were conducted at the carer agency that the carer was accessing.

### ***Data Collection***

Interviews had an introductory sequence which consisted of a discussion explaining informed consent, confidentiality and the context of the carer's referral. The first component of the interview began with an invitation for the carers to 'describe your relationship with [care receiver], and how and why it is/was a problem for you'. Based on Rosenthal and Fischer-Rosenthal's (2004) biographical narrative method, the aim was to elicit a detailed narrative indicating how the carers viewed their relationship, how they described the emergence of interpersonal problems, and how they presented themselves and the care receiver. During this part of the interview the researcher listened without interruption.

The second component of the interview focused on a recent conflict between the mental health carer and care-receiver, and was based on Core Conflictual Relationship Theme (CCRT) methodology. The CCRT method is derived from Luborsky's theory (1984) that an individual's relational exchanges are underpinned by a typical core conflict. The CCRT method explores this core conflict through exploration of an interpersonal narrative; identifying the individuals wishes/desires, reaction and responses to the other person, and the other persons reaction to them (Luborsky & Crits-Christoph, 1998). Our framework for exploring this took place in a narrative of recent conflict between the mental health carer and care-receiver, with set questions utilised to explore the above areas. The full set of questions was: a) Can you please describe the event or interaction, and what makes it significant for you? b) What were you thinking and feeling at the time? c) What did you want at the time? What did you want from the other person? d) How did the other person react? e) How did you cope with that? f) What happened in the end? g) What do you hope for in this relationship? How do you want your interactions to be different in the future? Interviews were audio-recorded for the purposes of transcription and lasted between 20 minutes and 75 minutes, with an average length of 34 minutes

### ***Analysis***

The 28 interviews were transcribed verbatim and de-identified labels were used in the interest of confidentiality. Thematic analysis was guided by the steps outlined by Braun and Clarke (2006). Following careful reading and re-reading of transcripts, initial codes were developed

based on emotional, social and behavioural content expressed by the carers as either 'occurring too much' or that they found 'hard to do'. In developing the codes, the theoretical framing of this study narrowed our analytical focus. Codes followed the following inclusion criteria: a) they needed to be interpersonal in nature; that is, relating to relationships or communication between people; and b) they needed to reflect a difficulty or problem.

To ensure reliability of codes, a manual was formed which listed codes, descriptions, example quotes and emergent categories. These codes underwent successive rounds of comparison, within and across interviews, as we compared their content and meaning in relation to one another and to the dataset in its entirety. During this process the manual was regularly updated, as codes could be amended, subsumed under other codes, or new codes created. The coding framework was refined by clustering codes together under umbrella themes, by identifying what was inherently common to or about them (that is, how they connected). Once the list of themes was finalised, a name was given to each theme thought to capture its essence and the final report was produced.

## **Findings**

### ***Demographics***

The potential sample consisted of 35 mental health carers on the waiting list for relationship support programs. Of these, 4 declined to participate in the study and 3 dropped out whilst scheduling the interview; citing time constraints. Participants (n = 28) were adult mental health carers. The majority of participants (approximately 78%) were caring for a family member; consisting of parents (60%), adult children (4%), and other relatives (14%). The remaining sample consisted of partners (18%) and other non-relatives (4%). The vast majority of participants were women (86%). Just over half (57%) of participants were long term carers, having cared for the care receivers for over 10 years. Table 1 shows further descriptive information on the sample obtained.

### ***Thematic Analysis***

Thematic analysis identified the following themes from the interview data: 1) emotion management; 2) aggression; 3) avoidance; 4) responsibility; 5) control; 6) communication; 7) role challenges. These themes and incorporated subthemes are set out in the following section. In what follows, quotes from participants are coded according to relationship to care-receiver: parent ('P'), child ('C'), other relative ('OR'), spouse ('S') or other non-relative ('ON'); and length of caring role: those caring for less than ten years defined as shorter term ('ST') and those caring for ten years or greater defined as longer term ('LT').

#### *i. Emotion management (identified by 89% of participants; 115 references total)*

The most prevalent theme- that is, the theme which appeared across the highest number of sources- was emotion management. Emotion management was defined as the ability to readily accept and successfully manage feelings in oneself. Emotion management presented as an interpersonal problem when emotions were presented as existing in 'excesses' and these excesses were described as 'hard to handle'. Emotion management was seen to consist of four subthemes; anger, upset, anxiety and non-specific

##### *1a. Anger*

The first category of emotion management related to anger. Carers described difficulties managing anger (as an emotion or behaviour) within the carer relationship. Anger was the only category of emotion management in which the interpersonal problem was cited as originating from both the carer and care-receiver. Carers described their own interpersonal difficulties in managing anger, illustrated by the following quotes:

I feel a lot of frustration, anger (OR4-LT)

I don't want to react the way sometimes I do, I react really angrily back (P4-ST)

There is probably a hell of a lot of anger and shit in relation to that which I haven't let –

dealt with before now (P3-ST)

Carers also described the care-receivers struggles with anger. As noted below:

You'd have to see it to believe how angry he gets (OR2-ST)

He does over-react. It works for him. He storms off, gets really angry and it works because everyone backs off (OR4-LT)

He is quite often, exploding in anger and doing something that he then regrets later (ON1-LT)

#### *1b. Upset*

The second category of emotion management was 'upset'; seen to consist of feelings of unhappiness and despondency. Carers described difficulties in managing these emotions in the context of their caring relationship. As described by three carers:

I just cry [long pause]. And yeah, there's not- there's not much else (P14-LT)

I feel hurt and upset and I ... don't know what to do (P17-LT)

I just get very upset, which I know is not helpful, but that's just what's happening (P4-ST)

#### *1c. Anxiety*

The third category of emotion management was anxiety; seen to consist of feelings of worry, nervousness, or unease. Carers described difficulties managing anxious emotions in the context of their caring relationship. As described by three long term carers:

I have a lot of anxiety towards him because I'm always walking around on eggshells (P10-LT)

When I feel overwhelmed I get panic attacks. That can happen if my husband picks up the phone and I know it's [care-receiver] and it sounds like there's something going wrong. I jump forward and think of the worst (P7-LT)

You would think after fifty years I would not worry still (S5-LT)

#### *1d. Non-specific*

The fourth category of emotion management was 'non-specific', which encapsulated descriptions that made no reference to a particular emotion. As illustrated in the following quotes, carers often reflected that emotions themselves were hard to handle.

I just have to cope with my emotions a bit better, or, I don't know, try to deal with it a bit better (OR3-ST)

Externally okay, but internally not well... that's why I need help, because I'm not coping very well internally (P17-LT)

### *ii. Avoidance (identified by 86% of participants; 80 references total)*

The second most common theme across transcripts was avoidance. Avoidance was defined as attempts to suppress unwanted experiences, and to alter the frequency at which they occur. Avoidance presented as an interpersonal problem as it was a behaviour which existed in 'excesses' within the relationship to account for behaviour found 'hard to do'. Avoidance was coded under three subthemes: physical, verbal and internal.

#### *2a. Physical avoidance*

The first category of avoidance was physical; defined as removing oneself *physically* from a situation as a means of coping. Carers described finding it hard to be in close proximity to the care-receiver, and thus physical avoidance was utilised as a coping strategy. Carers often noted that they utilised physical avoidance as a situational response to current conflict, such as:

I was just trying to remove myself so as not – so for it to not escalate (P4-ST)

I just ended up walking out (S1-ST)

Physical avoidance was also described as a pervasive coping strategy, that is, not

situationally bound. In this sense, carers utilised physical avoidance in efforts to avoid potential conflict. This is reflected in the following excerpts:

If you are living with someone like that you've got to get out all the time- you don't stay (P2-ST)

The less time we stay the less chance of her getting agitated or anxious (P12-LT)

Physical avoidance was the only category of avoidance in which the interpersonal problem was cited as originating from both the carer and care-receiver. Carers described this pattern of physically distancing as also occurring for the care-receiver. Examples include:

He'll storm off, he'll avoid, avoid, avoid, and avoid (OR4-LT)

He tends to just walk away and I'm saying, "I haven't finished talking to you yet," halfway through a sentence (P13-LT)

#### *2b. Verbal avoidance*

The second category of avoidance was verbal; defined as restricting what one says verbally as a means of coping. Carers described finding it hard to communicate with the care-receiver, and thus verbal avoidance was utilised as a coping strategy. As with physical manifestations of avoidance, carers noted that they utilised verbal strategies as a situational response to current conflict. Examples include:

Change the subject mode (P7-LT)

That's why I just shut up (OR2-ST)

Verbal avoidance was also described as a pervasive coping strategy, that is, not situationally bound. In this sense, carers utilised verbal avoidance in excess, in efforts to avoid potential conflict. This is reflected in the following excerpts:

I don't talk to him anymore unless I have to (P5-ST)

If I be quiet, and get out of the house, it's okay (P2-ST)

#### *2c. Internal avoidance*

The third category of avoidance was internal; defined as attempts to reduce the frequency and/or intensity of internal experiences such as thoughts, feelings and memories. Carers described finding it hard to manage the internal experiences that arose due to their carer relationship, and thus internal avoidance was used as a means of coping. The internal avoidance described by carers consisted of efforts to numb/dull emotions, or attempting to ignore thoughts and feelings altogether. Carers described the process of internal avoidance as a struggle. This is illustrated by the following quotes:

I try to ignore it; not let it affect me too much. Try to distance myself to a degree (S3-ST)

And just gone about my stuff and just sort of ignored it. I haven't really dealt with it in such a way, but I've kind of ignored it (P15-LT)

The theme of internal avoidance has overlap with that of emotion management. It is argued that these themes, whilst similar in that they both draw on emotions, represent distinct interpersonal problems. The interpersonal problem underlying internal avoidance is the inhibition of internal experiences; thoughts and feelings are experienced as 'hard to handle', leading to struggles with internal avoidance. In contrast, in emotion management the underlying interpersonal problem is difficulty managing excess of emotion.

#### *iii. Aggression (identified by 82% of participants; 113 references total)*

The third most common theme across transcripts was aggression. Aggression was defined as behaviours that can result in real or perceived physical and psychological harm to oneself, other or objects in the environment. Aggression presented as an interpersonal problem as it was a behaviour which existed in 'excesses' and that was 'hard to handle' within the carer relationship. In all cases where carers discussed incidents of aggression, the support organisation was made aware (with the consent of the carer) and responded in line with

existing risk management protocols. Aggression was coded under two subthemes: verbal aggression and physical aggression.

### *3a. Verbal hostility*

Verbal hostility was understood to be the use of words to harm another or attacks another person's self-concept. Throughout the category of verbal hostility, the interpersonal problem was cited as originating from both the carer and care-receiver. Carers described experiencing an excess of hurtful or insulting comments within the carer relationship. Experiences include: She'll insult me with a lot of, you're weak, you're going to cry, you're hopeless, things like that... It's the actual words she uses that really hurt (P4-ST)

She says the most nasty vicious things to you and expects you just to forgive her (C1-LT)

He calls me all the names under the sun (OR2-ST)

Verbal hostility was frequently framed as occurring in the context of conflict. Arguments were put forward as a common experience within the relationship. This is illustrated by the following quotes:

You've got her constantly arguing (P5-ST)

I responded with a screaming match (P10-LT)

Just being up in his face and yelling and screaming at him (S1-ST)

### *3b. Physical aggression*

The second category of aggression was physical; seen as threatening behaviour towards another person or an object. Excesses of physical aggression within the relationship were described as originating from the care-receiver, with examples as follows:

She would hit me around the head (S3-ST)

So one day she just pushed me up against a cupboard and without realising it she threw me down the stairs (P2-ST)

He was willing to throw me out of the way... He is willing to be physically violent (P16-LT)

Carers also described physical aggression towards an object as being a common experience within the carer relationship. In describing the care-receiver's interpersonal behaviour, the following carers noted:

He has broken windows before (ON1-LT)

Because she's damaged so much up here, we don't ask her to come intentionally anymore because of the damage she does (P12-LT)

He'll slam the door (P14-LT)

### *iv. Responsibility (identified by 75% of participants; 93 references total)*

The fourth theme was responsibility. Responsibility was defined as the state of being answerable or accountable for something within one's power or management. Responsibility as an interpersonal problem ranged from an individual taking on too much responsibility to individuals not taking on sufficient responsibility.

Carers noted that responsibility existed in excesses within their relationship with the care-receiver and noted interpersonal problems around having or accepting "too much" responsibility. These struggles with excess responsibility are illustrated by the following:

I would just automatically pick it up and take it on as my responsibility (P3-ST)

There's a lot of reliance on me. I'm the person he comes to (OR4-LT)

I am the one who hears about that, I'm the one who deals with that (P4-ST)

When reflecting on responsibility, many carers perceived that they were solely responsible for the care-receiver's wellbeing. There was a pervasive sense of being the only one, as reflected in the following excerpts:

I've been the only one that's been here regularly in his life (P10-LT)

I'm the only person there that is going to be able to encourage him to get out of bed, shower, eat, all those sorts of things (P14-LT)

And again in that comes the responsibility of knowing 'well he's going to come to somebody so if I'm not there, who else is going to be there?' (OR3-LT)

Carers noted that there was a lack of responsibility or taking responsibility was 'hard to do' within the carer relationship. These difficulties with responsibility were described as originating from the care-receiver., as follows:

She has got no responsibility- she has got some but not enough to manage on her own (P2-ST)

She kept coming and running to me for help all the time (S3-ST)

There's no capacity on my husband's side to accept or take ownership for behaviour and change it (S2-ST)

v. *Control (identified by 71% of participants; 83 references total)*

The fifth theme was that of control. Control was defined as power to influence or direct people's behaviour or the course of events. As with responsibility, control ranged from excesses or insufficient control within the carer relationship. Excesses of control were attributed to originating from both ends of the relationship; that is, carers identified that both they and the care-receiver excessively used control. For example:

He can control every situation (S1-ST)

There's still that need to control things from his point of view, which is extremely frustrating for me and that's probably the root cause of a lot of our conflicts actually (S2-ST)

Me observing and over controlling, and stepping in (OR4-LT)

Carers also noted that control was insufficient- there was a lack of control or gaining control was 'hard to do'- within the carer relationship. Carers perceived that control being 'hard to do' originated from their end of the relationship, with examples as follows:

You don't have any control (P16-LT)

I feel like I don't have a say...I just feel like I have to back down (OR3-ST)

I know people say to me 'you let her' but if you... she is very difficult and she is abusive. It's hard. It's really hard (P2-ST)

Whilst carers self-identified as having insufficient control over aspects of their relationship, many attributed this to the care-receivers perceived defiance. Carers described the care-receiver as behaving oppositionally, which left them feeling powerless to take control within the relationship.

I thought 'it doesn't matter what I say or what I do, he's just gonna do what he wants anyway' (P16-LT)

He has been told that he shouldn't do it and that he must stop and it just continues (ON1-LT)

When reflecting on how control presented within the relationship, many carers self-identified that this is an area they wanted skills to help them manage. This presented regardless of which end of the spectrum control was identified at- the common element was a desire for control to 'balance out'.

I need to be able to say in a way that is not boom boom, direct and confronting. I need to be able to say to him in a softer way (P8-LT)

I just want to – how to get control over the conversation instead of being overpowering and overbearing of somebody (OR3-ST)

I need to create better boundaries (P17-LT)

vi. *Communication (identified by 50% of participants; 53 references total)*

The sixth theme was communication. Communication was defined as the imparting or

exchanging of information by speaking, writing, or another medium. Communication presented as an interpersonal problem as it existed as inadequate within the relationship between the carer and care-receiver.

Carers described finding it hard to communicate with the care-receiver, contributing to relational difficulties. This is illustrated by:

It really does feel uncomfortable not going with the flow where she's been at and not feeling comfortable enough in applying different ways of communicating with her (P3-ST)

It's like talking another language, and if you've only got one – if one of the words is the wrong word in that sentence it changes the whole meaning of the sentence (P13-LT)

Communication is non-existent (P10-LT)

Communication between the carer and care-receiver was confounded due to a lack of understanding in the relationship. Carers expressed feeling like they could not understand their loved one, and that the care-receiver communicated in a manner that also displayed a lack of understanding. This is illustrated by:

I'd like to try and understand more of where he's coming from (P16-LT)

I wanted her to understand my point of view (OR3-ST)

Whilst communication difficulties existed on both sides of the relationship, carers noted that a perceived inability/unwillingness to listen originated from the care-receiver. Examples include:

I want to be heard, I don't feel I'm heard, like very, very, very rarely am I ever heard in any interaction generally (S2-ST)

I would like him to take more notice of what I say (P13-LT)

*vii. Role challenges (identified by 50% of participants; 38 references total)*

The final theme was role challenges, seen to be difficulties navigating the expected behaviour pattern associated with ones roles. A common challenge for carers was navigating their dual role as a carer to the care-receiver and a person in a relationship (i.e. parent, spouse, relative etc.) with the care-receiver. When discussing the difficulties in juggling these two roles, there was a sense that the carer role took prominence. Carers expressed feeling like they could not be a person in a relationship with the care-receiver (i.e. be a parent, a spouse, etc.), due to the demands to fulfil their role as a carer. This is evident in the following quotes:

I feel like I'm nearly 100% carer, I'm not – I don't really have a wife role at all (S2-ST)

I always feel like I'm a referee, an umpire and I think that cuts out a lot of intimacy because then I'm taking almost like a parent figure in that role (S3-ST)

I can't play both roles (P17-LT)

When reflecting on these role challenges, there was a sense of identity loss present for carers. Carers noted that they felt they could not be themselves within the relationship- or that who they were was not seen- due to the need to act as a 'carer'.

I can't be myself. I can't be me. I have to be what they want me to be (P2-ST)

I'm just that person, that caring person, enabling person (P3-ST)

Lastly, carers described difficulties in stepping back from their roles and focusing on their own needs as a person. The carer role was associated with meeting the needs of others, and the balance of the carers own needs being met within this relationship was overlooked.

I don't feel like I've got opportunity to have a life for myself or my needs met (P4-ST)

It's a hard balance between 'he needs me' but then 'so does everyone else' (OR4-LT)

## **Discussion**

Mental health caregiving is unpredictable and episodic and frequently generates “uncomfortable” thoughts and emotions in carers (A. Losada et al., 2015). This is most



clearly reflected in the interpersonal problem of emotion management, with our study highlighting the prevalence of anger, anxiety and ‘upset’ in mental health carer relationships. These findings are consistent with that of previous literature- which indicates that carers experience these emotions, alongside a myriad of others such as resentment, isolation, fear, hopelessness, loss, guilt and denial (Albert & Simpson, 2015; Gray, Seddon, Robinson, & Roberts, 2009; Wynaden, 2007).

In the face of a lifecontext that can raise such difficult emotions, it is understandable that carers may make attempts to avoid stimuli that could evoke such experiences. Our study highlights that mental health carers experience avoidance as a significant interpersonal problem within their relationships. It is established that carers experience moderate to high levels of avoidance (Ulstein, Wyller, & Engedal, 2008), with indications that avoidance is utilised as a means of coping (van Teijlingen Edwin & Lowit, 2005). Ironically, though intended as a means of reducing short term distress, avoidance has a negative impact on the long term coping of carers (Orsillo, Roemer, & Barlow, 2003). Avoidant process in carers are associated with symptoms of anxiety (Ulstein et al., 2008), distress (Onwumere et al., 2011) and depression (A. Losada et al., 2015). In the context of relationships, avoidant tendencies may result in a distancing of carers from their personal values (Orsillo et al., 2003); getting in the way of being the person they want to be in their caring relationship. There are established interventions for reducing experiential avoidance, though there remains a need to assess suitability for the mental health carer population. The progression of interventions in this area needs to identify which interpersonal experiences are being avoided (e.g., emotion management, aggression) in order to increase mental health carers capacity for those experiences. Furthermore, the impact of avoidance on interpersonal functioning needs to be considered- that is, does reducing avoidance correspond with an increase in the strength, quality, and functionality of the carer relationship?

Avoidance is often utilised when an individual perceives they lack control to effectively manage a situation, or misjudge which experiences are within their power to alter (Chawla & Ostafin, 2007; Hayes & Wilson, 1994). Consistent with our finding of control as an interpersonal problem, research has indicated that many carers perceive a lack of control in their lives and relationship with the care-receiver (Wilkinson & McAndrew, 2008; Williams, Dagnan, Rodgers, & Freeston, 2015). However, despite feeling like they lack control, carers often perceive themselves as holding responsibility for their loved ones (Harden, 2005; Hughes, Locock, & Ziebland, 2013; Penning & Zheng, 2016). In our findings, control and responsibility presented as a continuum, at which interpersonal problems existed at either end. This mirrors contemporary interpersonal theory, which assumes interpersonal behaviours can be described along two principal dimensions: affiliation, which ranges from hostile behaviour to friendly behaviour; and control, which ranges from submissive behaviour to dominating behaviour (Alden et al., 1990; Horowitz et al., 2000). In our study, both ends of the ‘control’ dimension emerged (excesses and inhibitions of control and responsibility), whereas only the hostile end of the ‘affiliation’ dimension emerged (excesses of aggression).

The finding that mental health carers often experience high levels of hostility and aggression within their caring relationship is consistent with that of previous research. Hostile and critical interactions are characteristic of high expressed emotion; a widely researched experience within the caregiver population (Cherry, Taylor, Brown, Rigby, & Sellwood, 2017). The presence of aggression and hostility in carer relationships is associated with poorer relationships between carers and care-receivers (Spector, Charlesworth, Orrell, & Marston, 2016; N. Spruytte, Van Audenhove, Lammertyn, & Storms, 2002) and higher burden and distress for carers (González-Blanch et al., 2010). There are suggestions that carers may minimize the aggression experienced within their relationship, due to conflicting emotions of loyalty and betrayal (Albert & Simpson, 2015). The presence of aggression as an

interpersonal problem for mental health carers, in the backdrop of the presence of avoidance, highlights the importance of considering mental health carer interpersonal problems in a holistic manner, rather than focusing on experiences in isolation. If the aim is for carers to manage difficult internal and external experiences (rather than avoid), this needs to occur in a contextually sensitive manner that targets the overall pattern of relating.

A relational context high in negative emotions and aggression does not provide an easy platform for healthy communication. Communication presented as an interpersonal problem in our findings, with carers noting there were difficulties in understanding each other, communicating needs and listening within the relationship. The mental health diagnosis of the care receiver would be a confounding factor here, with particular illnesses such as schizophrenia carrying with them more communication barriers (Bazin, Sarfati, Lefrère, Passerieux, & Hardy-Baylé, 2005; Best & Bowie, 2013). Communication is essential to maintaining a person's health and wellbeing (Kyle, Melville, & Jones, 2010), and so the significance of supporting mental health carers to improve this interpersonal process is high.

The interpersonal problems that arose during this study overlap with other problems that have been identified amongst carers (e.g., expressed emotion) and there are a range of interventions to address these difficulties (e.g. Acceptance and Commitment Therapy for carer avoidance; Andrés Losada, Márquez-González, Romero-Moreno, & López, 2014). However, these specific relational difficulties are often considered in isolation, with the reduction of symptoms or problematic behaviours the goal of treatment rather than overall interpersonal functioning. This emphasises the need for comprehensive evaluation of interpersonal problems in mental health carers, using established measures such as the Inventory of Interpersonal Problems (Alden et al., 1990; Horowitz et al., 2000; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). Such evaluation provides a direct connection between assessment, interpersonal theory and intervention; allowing treatment to be tailored to a mental health carers specific interpersonal problem profile. Interpersonal problems have been shown to predict the success of treatment and individual responses to therapy; providing a platform on which to base individualized treatment planning. For example, interpersonal problems related to coldness and avoidance benefit from graded exposure (Alden & Capreol, 1993) whereas individuals with interpersonal problems related to dominance and intrusiveness respond more favourably to experiential behaviour interventions (Newman, Jacobson, Erickson, & Fisher, 2017). However, in light of suggestions that 'change in [Australian carer] clinical practice will only occur if it is mandated by legislation, well grounded in policy and protocols' (McMahon, Hardy, & Carson, 2007, p.10), the need for evidence based treatment protocols and supporting policies is highlighted. Although Australian social policy has commenced recognising the importance of carer relationships (Department of Human Services, 2006; Carers Recognition Act, 2010), there is still little guidance provided to the resources needed to support carers in this interpersonal role. The current sample consisted of primarily female mental health carers and the majority were caring for a family member, and thus cannot be seen to be representative of mental health carers as a whole. The potential mediating influences of gender, care relationship to care-recipient, mental health diagnosis and length of caring role warrant further investigation. A strength of this study was the qualitative methodology, which allowed for the exploration of a topic area in which there has been little previous research. The combination of open narrative and semi-structured questions enabled rich data to be collected on mental health carers interpersonal problems, and identified areas for further exploration. Future research could adopt a quantitative methodology, utilising standardized measures of interpersonal problems. A limitation of the chosen methodology is the reliance on the views of mental health carers only. Considering carers and care-receivers experience disparity in how they view their relationship (Manne et al., 2006), this study could have been improved by involving both

parties as active research participants.

## References

- Albert, R., & Simpson, A. (2015). Double deprivation: A phenomenological study into the experience of being a carer during a mental health crisis. *Journal of Advanced Nursing*, 71(12), 2753-2762. doi:10.1111/jan.12742
- Alden, L., Wiggins, & Pincus. (1990). Construction of circumplex scales for the Inventory of Interpersonal Problems. *Journal of Personality Assessment*, 55(3-4), 521-536. doi:10.1207/s15327752jpa5503&4\_10
- Alden, L., & Capreol, M. (1993). Avoidant personality disorder: Interpersonal problems as predictors of treatment response. *Behavior Therapy*, 24(3), 357-376. doi:10.1016/S0005-7894(05)80211-4
- Bazin, N., Sarfati, Y., Lefrère, F., Passerieux, C., & Hardy-Baylé, M. C. (2005). Scale for the evaluation of communication disorders in patients with schizophrenia: A validation study. *Schizophrenia Research*, 77(1), 75-84. doi:10.1016/j.schres.2005.01.020
- Best, M. W., & Bowie, C. R. (2013). Neurophysiological responses to schizophrenia-associated communication abnormalities. *Schizophrenia Research*, 148(1-3), 157-162. doi:10.1016/j.schres.2013.06.009
- Braithwaite, V. (2000). Contextual or general stress outcomes: Making choices through caregiving appraisals. *The Gerontologist*, 40(6), 706-717. doi:10.1093/geront/40.6.706
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa
- Broadly, T. R., & Stone, K. (2015). "How can I take a break?" Coping strategies and support needs of mental health carers. *Social Work in Mental Health*, 13(4), 318-335. doi:10.1080/15332985.2014.955941
- Campling, J., & Jones, D. W. (2001). *Myths, Madness and the Family: The Impact of Mental Illness on Families*: Macmillan Education UK.
- Carers Recognition Act NSW. (2010). Available from <https://www.legislation.nsw.gov.au/#/view/act/2010/20/whole>.
- Chattoo, S., & Ahmad, W. I. U. (2008). The moral economy of selfhood and caring: Negotiating boundaries of personal care as embodied moral practice. *Sociology of Health and Illness*, 30(4), 550-564. doi:10.1111/j.1467-9566.2007.01072.x
- Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology*, 63(9), 871-890. doi:10.1002/jclp.20400
- Cherry, M. G., Taylor, P. J., Brown, S. L., Rigby, J. W., & Sellwood, W. (2017). Guilt, shame and expressed emotion in carers of people with long-term mental health difficulties: A systematic review. *Psychiatry Research*, 249, 139-151. doi:10.1016/j.psychres.2016.12.056
- Department of Human Services. (2006). *Recognising and supporting care relationships : a Department of Human Services policy framework*. Melbourne: Department of Human Services.
- González-Blanch, C., Martín-Muñoz, V., Pardo-García, G., Martínez-García, O., Alvarez-Jiménez, M., Rodríguez-Sánchez, J. M., . . . Crespo-Facorro, B. (2010). Effects of family psychoeducation on expressed emotion and burden of care in first-episode psychosis: A prospective observational study. *Spanish Journal of Psychology*, 13(1), 389-395. doi:10.1017/S1138741600003942

- Gray, B., Seddon, D., Robinson, C. A., & Roberts, A. (2009). An emotive subject: insights from social, voluntary and healthcare professionals into the feelings of family carers for people with mental health problems. *Health and Social Care in the Community*, 17(2), 125-132. doi:10.1111/j.1365-2524.2008.00803.x
- Gurtman, M. B. (1992). Trust, distrust, and interpersonal problems: A circumplex analysis. *Journal of Personality & Social Psychology*, 62(6), 989-1002.
- Harden, J. (2005). Parenting a young person with mental health problems: temporal disruption and reconstruction. *Sociology of Health & Illness*, 27(3), 351-371. doi:10.1111/j.1467-9566.2005.00446.x
- Hayes, S., & Wilson, K. (1994). Acceptance and commitment therapy: Altering the verbal support for experiential avoidance. *The Behavior Analyst*, 17(2), 289-303.
- Henderson, J. (2001). 'He's not my carer—he's my husband': personal and policy constructions of care in mental health. *Journal of Social Work Practice*, 15(2), 149-159. doi:10.1080/02650530120090601
- Henderson, J., & Forbat, L. (2002). Relationship-based social policy: Personal and policy constructions of 'care'. *Critical Social Policy*, 22(4), 669-687. doi:10.1177/02610183020220040601
- Horowitz, L. (1979). On the cognitive structure of interpersonal problems treated in psychotherapy. *Journal of Consulting and Clinical Psychology*, 47(1), 5-15. doi:10.1037/0022-006X.47.1.5
- Horowitz, L., Alden, L., Wiggins, J., & Pincus, A. (2000). *IIP, Inventory of Interpersonal Problems Manual*. San Antonio, TX: The Psychological Corporation.
- Horowitz, L., Rosenberg, S., Baer, B., Ureno, G., & Villasenor, V. (1988). Inventory of Interpersonal Problems: Psychometric Properties and Clinical Applications. *Journal of Consulting and Clinical Psychology*, 56(6), 885-892. doi:10.1037/0022-006X.56.6.885
- Horowitz, L., Rosenberg, S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy. *Journal of Consulting and Clinical Psychology*, 61(4), 549-560. doi:10.1037/0022-006X.61.4.549
- Horowitz, L., Wilson, K., Turan, B., Zolotsev, P., Constantino, M., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model. *Personality & Social Psychology Review*, 10(1), 67-86. doi:10.1207/s15327957pspr1001\_4
- Hughes, N., Locock, L., & Ziebland, S. (2013). Personal identity and the role of 'carer' among relatives and friends of people with multiple sclerosis. *Social Science & Medicine*, 96, 78-85. doi:10.1016/j.socscimed.2013.07.023
- Jans, L. S., & Kraus, L. (2004). *Chartbook on Mental Health and Disability in the United States. An Infolle Report*. National Institute on Disability and Rehabilitation Research.
- Jeon, Y., Brodaty, H., & Chesterson, J. (2005). Respite care for caregivers and people with severe mental illness: literature review. *Journal of Advanced Nursing*, 49(3), 297-306. doi:10.1111/j.1365-2648.2004.03287.x
- Jeon, Y., & Madjar, I. (1998). Caring for a family member with chronic mental illness. *Qualitative Health Research*, 8(5), 694-706.
- Kayser, K., Watson, L. E., & Andrade, J. T. (2007). Cancer as a "we-disease": Examining the process of coping from a relational perspective. *Families, Systems and Health*, 25(4), 404-418. doi:10.1037/1091-7527.25.4.404

- Kyle, S., Melville, C. A., & Jones, A. (2010). Effective communication training interventions for paid carers supporting adults with learning disabilities. *British Journal of Learning Disabilities*, 38(3), 210-216. doi:10.1111/j.1468-3156.2009.00594.x
- Lawn, S., & McMahon, J. (2014). The importance of relationship in understanding the experiences of spouse mental health carers. *Qualitative Health Research*, 24(2), 254-266. doi:10.1177/1049732313520078
- Leary, T. (2004). *Interpersonal Diagnosis of Personality: A Functional Theory and Methodology for Personality Evaluation*: Wipf & Stock Publishers.
- Losada, A., Márquez-González, M., Romero-Moreno, R., & López, J. (2014). Development and validation of the Experiential Avoidance in Caregiving Questionnaire (EACQ). *Aging and Mental Health*, 18(7), 897-904. doi:10.1080/13607863.2014.896868
- Losada, A., Márquez-González, M., Romero-Moreno, R., López, J., Fernández-Fernández, V., & Nogales-González, C. (2015). Cognitive behavioral therapy (CBT) versus acceptance and commitment therapy (ACT) for dementia family caregivers: follow-up results of a randomized clinical trial. *European Geriatric Medicine*, 5, S46. doi:10.1016/S1878-7649(14)70088-9
- Luborsky, L. (1984). *Principles of psychoanalytic psychotherapy : a manual for supportive-expressive treatment / Lester Luborsky*: New York : Basic Books, c1984.
- Luborsky, L., & Crits-Christoph, P. (1998). *Understanding transference : the core conflictual relationship theme method / Lester Luborsky, Paul Crits-Christoph* (2nd ed.): Washington, DC : American Psychological Association, c1998.
- Manne, S. L., Ostroff, J. S., Norton, T. R., Fox, K., Goldstein, L., & Grana, G. (2006). Cancer-related relationship communication in couples coping with early stage breast cancer. *Psycho-Oncology*, 15(3), 234-247. doi:10.1002/pon.941
- McMahon, J., Hardy, J. & Carson, R. (2007). *Identifying the carer project. Final report and recommendations for the Commonwealth Department of Health and Ageing*. Retrieved January 10 2018 from: <http://www.health.gov.au/internet/publications/publishing.nsf/Content/pub-sqps-carers-toc>
- Nelis, S. M., Clare, L., & Whitaker, C. J. (2012). Attachment representations in people with dementia and their carers: Implications for well-being within the dyad. *Aging & Mental Health*, 16(7), 845-854. doi:10.1080/13607863.2012.667779
- Newman, M. G., Jacobson, N. C., Erickson, T. M., & Fisher, A. J. (2017). Interpersonal Problems Predict Differential Response to Cognitive Versus Behavioral Treatment in a Randomized Controlled Trial. *Behavior Therapy*, 48, 56-68. doi:10.1016/j.beth.2016.05.005
- Onwumere, J., Kuipers, E., Garety, P., Bebbington, P., Dunn, G., Freeman, D., & Fowler, D. (2011). Coping styles in carers of people with recent and long-term psychosis. *Journal of Nervous and Mental Disease*, 199(6), 423-424. doi:10.1097/NMD.0b013e31821ccb07
- Orsillo, S. M., Roemer, L., & Barlow, D. H. (2003). Integrating acceptance and mindfulness into existing cognitive-behavioral treatment for GAD: A case study. *Cognitive and Behavioral Practice*, 10(3), 222-230. doi:10.1016/S1077-7229(03)80034-2
- Oyebode, J. (2003). Assessment of carers' psychological needs. *Advances in Psychiatric Treatment*, 9(1), 45-53. doi:10.1192/apt.9.1.45
- Penning, M. J., & Zheng, W. (2016). Caregiver stress and mental health: Impact of caregiving relationship and gender. *Gerontologist*, 56(6), 1102-1113. doi:10.1093/geront/gnv038
- Pincus, A. L., & Wiggins, J. S. (1990). Interpersonal problems and conceptions of personality disorders. *Journal of Personality Disorders*, 4(4), 342-352.

- Rosenthal, G., & Fischer-Rosenthal, W. (2004). The analysis of narrative-biographical interviews. In U. Flick, E. v. Kardorff, & I. Steinke (Eds.), *A Companion to Qualitative Research*: London ; Thousand Oaks, Calif. : Sage Publications, 2004.
- Sadler, E., & McKeivitt, C. (2013). 'Expert carers': An emergent normative model of the caregiver. *Social Theory & Health*, *11*(1), 40-58.  
doi:http://dx.doi.org/10.1057/sth.2012.17
- Spector, A., Charlesworth, G., Orrell, M., & Marston, L. (2016). Factors influencing the person–carer relationship in people with anxiety and dementia. *Aging and Mental Health*, *20*(10), 1055-1062. doi:10.1080/13607863.2015.1063104
- Spruytte, N., Van Audenhove, C., & Lammertyn, F. (2001). Predictors of institutionalization of cognitively-impaired elderly cared for by their relatives. *International Journal of Geriatric Psychiatry*, *16*(12), 1119-1128. doi:10/1002/gps.484
- Spruytte, N., Van Audenhove, C., Lammertyn, F., & Storms, G. (2002). The quality of the caregiving relationship in informal care for older adults with dementia and chronic psychiatric patients. *Psychology and Psychotherapy: Theory, Research and Practice*, *75*(3), 295-311. doi:10.1348/147608302320365208
- Sullivan, H. S. (1953). *The Interpersonal Theory of Psychiatry*. New York: Norton.
- Ulstein, I., Wyller, T. B., & Engedal, K. (2008). Correlates of intrusion and avoidance as stress response symptoms in family carers of patients suffering from dementia. *International Journal of Geriatric Psychiatry*, *23*(10), 1051-1057.  
doi:10.1002/gps.2032
- Ussher, J. M., Wong, W. K. T., & Perz, J. (2011). A qualitative analysis of changes in relationship dynamics and roles between people with cancer and their primary informal carer. *Health*, *15*(6), 650-667. doi:10.1177/1363459310367440
- van Teijlingen Edwin, R., & Lowit, A. (2005). Avoidance as a strategy of (not) coping: qualitative interviews with carers of Huntington's Disease patients. *BMC Family Practice*, *Vol 6, Iss 1, p 38 (2005)*(1), 38. doi:10.1186/1471-2296-6-38
- Wadham, O., Simpson, J., Rust, J., & Murray, C. (2016). Couples' shared experiences of dementia: A meta-synthesis of the impact upon relationships and couplehood. *Aging and Mental Health*, *20*(5), 463-473. doi:10.1080/13607863.2015.1023769
- Wilkinson, C., & McAndrew, S. (2008). 'I'm not an outsider, I'm his mother!' A phenomenological enquiry into carer experiences of exclusion from acute psychiatric settings. *International Journal of Mental Health Nursing*, *17*(6), 392-401.  
doi:10.1111/j.1447-0349.2008.00574.x
- Williams, S., Dagnan, D., Rodgers, J., & Freeston, M. (2015). Exploring carers' judgements of responsibility and control in response to the challenging behaviour of people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, *28*(6), 589-593. doi:10.1111/jar.12146
- Wynaden, D. (2007). The experience of caring for a person with a mental illness: A grounded theory study. *International Journal of Mental Health Nursing*, *16*(6), 381-389.  
doi:10.1111/j.1447-0349.2007.00493.x

## Appendix B: Ethics approval for Studies One and Four



APPROVAL LETTER  
In reply please quote: HE14/416

22 December 2014

Dr Trevor Crowe  
School of Psychology  
Faculty of Social Sciences

Dear Dr Crowe,

Thank you for your response dated 10 December 2014 to the HREC review of the application detailed below. I am pleased to advise that the application has been approved.

Ethics Number: HE14/416  
Project Title: Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems  
Researchers: Dr Trevor Crowe, Ms Elly Bailey, Ms Gemma Mackenzie  
Approval Date: 18 December 2014  
Expiry Date: 17 December 2015

The University of Wollongong/Illawarra Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC *National Statement on Ethical Conduct in Human Research*. The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document.

Approval by the HREC is for a twelve month period. Further extension will be considered on receipt of a progress report prior to expiry date. Continuing approval requires:

- The submission of a progress report annually and on completion of your project. The progress report template is available at <http://www.uow.edu.au/research/ethics/human/index.html>. This report must be completed, signed by the researchers and the appropriate Head of Unit, and returned to the Research Services Office prior to the expiry date.
- Approval by the HREC of any proposed changes to the protocol including changes to investigators involved
- Immediate report of serious or unexpected adverse effects on participants
- Immediate report of unforeseen events that might affect continued ethical acceptability of the project.

If you have any queries regarding the HREC review process, please contact the Ethics Unit on phone 4221 3386 or email [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au).

Yours sincerely

A handwritten signature in black ink, appearing to read "Mark Rix", written over a horizontal line.

Dr Mark Rix  
Acting Chair, Social Sciences  
Human Research Ethics Committee

Ethics Unit, Research Services Office  
University of Wollongong NSW 2522 Australia  
Telephone (02) 4221 3386 Facsimile (02) 4221 4338  
Email: [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au) Web: [www.uow.edu.au](http://www.uow.edu.au)

## Appendix C: Interview Protocol for Study One

I'm going to ask you to tell me more about two key people who are or have been in your life.

The first person I'll ask you to talk about is a parent (or main caregiver to you) when you were growing up. In particular the parent/childhood caregiver:

- you had or have most difficulty getting on with;
- whose relationship you are most concerned about;
- who provokes the stronger or more difficult emotions in you.

The second person I'll ask you to talk about is the person for whom you are providing care. If you are caring for more than one person, please choose the relationship:

- you are most concerned about;
- you would most like to be improved through your participation in the program;
- in which you experience conflict; and/or
- in which you experience strong and difficult emotions

Person 1: \_\_\_\_\_

Person 2: \_\_\_\_\_

Relationship: \_\_\_\_\_

Relationship: \_\_\_\_\_

Current relationship: Yes / No /  
Specify: \_\_\_\_\_

Current relationship: Yes / No /  
Specify: \_\_\_\_\_

*(Go through the following two sections for Person 1 and then for Person 2)*

I will now ask you to speak to me for about five minutes about \_\_\_\_\_. If you can also **describe your relationship** with him/her, and **how and why it is/was a problem** for you.

During this time I will let you speak uninterrupted and I won't ask you any questions. After you have finished speaking I may ask you some questions and we will discuss your relationship with \_\_\_\_\_ in more detail.

Because I am not going to be able to write notes about what you say quickly enough, would it be ok if I record what you say using this digital recorder? *(Discuss with client the nature of the recording, its storage, and its transcription; seek consent to recording).*



I would now like to talk in more detail about some specific occasions when you have been interacting with \_\_\_\_\_. Think about a significant interaction you've had with \_\_\_\_\_, particularly one that occurred recently which you can remember in detail. In this case a significant interaction might be when something you said or something the other person said made you feel misunderstood, judged, disrespected, or rejected; or left you feeling really angry or upset. A significant event might lead you to do things like distrust the other person, argue with them, or want to withdraw from them.

Do you have any questions so far? I'll give you some time to choose a recent interaction and then I'll ask you a few questions about it. How does that sound?

1. Can you please describe the event or interaction, and what makes it significant for you.
2. What were you thinking and feeling at the time?
3. What did you want at the time? What did you want from the other person?
4. How did the other person react?
5. How did you cope with that?
6. What happened in the end?
7. What do you hope for in this relationship? How do you want your interactions to be different in the future?

**(Repeat questions for person 2)**

**(End the audio recording here)**

## Appendix D: Participant Information Sheet and Consent Form for Study One



### PARTICIPANT INFORMATION SHEET FOR PROGRAM EVALUATION

TITLE: *Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems*

#### PURPOSE OF THE RESEARCH

This is an invitation to participate in a study conducted by researchers at the University of Wollongong. The purpose of this research is to evaluate the effectiveness of an Acceptance and Commitment Therapy-based program for interpersonal problems (i.e. *Me and My Relationships*). *Me and My Relationships* is offered in both a group therapy and individual format. This study will evaluate the individual & group programs in terms of client satisfaction, client outcomes, and reported strengths and weaknesses of the programs.

#### INVESTIGATORS

Dr Trevor Crowe  
*Clinical Supervisor*  
*Faculty of Psychology*  
4221 3147

tcrowe@uow.edu.au

Miss Elly Bailey  
*PhD Candidate &*  
*Research Assistant*  
4221 4207

elly@uow.edu.au

#### METHOD AND DEMANDS ON PARTICIPANTS

Participating in this study will involve consenting to your existing data, collected as part of the *Me and My Relationships* program, being utilized for research purposes.

If you choose to participate in this study, the data that we will need access to includes:

1. the demographic information that you provide
2. your written questionnaire responses
3. the transcript of the 'relationships' section of the intake interview

If you consent to your data being used for research purposes, the following process will be utilized. We will photo-copy your original data, de-identify it, and mark it with a participant code. This will ensure that your contribution to the research remains confidential. Our copy of your data will be stored in a locked filing cabinet, at Northfields Clinic (Building 22 Room G12) and would only be seen by the researchers. Your original data will remain with the service provider you undertook the program with, as part of your client file.

#### POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS

Participation in the research will only involve consenting to the existing data, collected as part of the *Me and My Relationships* program, being utilized for research purposes. As such, it involves no further demands on your time beyond what is already expected of you as a program participant. We see no foreseeable additional risks for you. Your involvement in the research is voluntary and you may withdraw your participation & data at any time. If you choose to withdraw from *Me and My Relationships* group prematurely, you can also choose to withdraw any previously collected data for the use of research purposes. If at any point you want to withdraw from the research please contact one of the researchers using the contact details provided. You can choose to participate in the *Me and My Relationships* program and not this study. Refusal to participate in the study will not affect your relationship with the program provider, or the University of Wollongong.

#### FUNDING & BENEFITS OF THE RESEARCH

This study is not currently funded. Participating in this study has the benefit of allowing us to evaluate & improve the *Me and My Relationships* program. It also has the benefit of contributing to research in the broad area of support programs for individuals with interpersonal problems. This may lead to improvement in future program design & development. Findings from this research will be included in reports about the development and evaluation of this program that may be published in research journals and included in a PhD thesis. Confidentiality is assured and you will not be identified in any part of the research.

#### HOW TO TAKE PART IN THIS RESEARCH

If you would like to take part in the research, please directly contact one of the researchers using the contact details above.

#### ETHICS REVIEW AND COMPLAINTS

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UoW Ethics Officer on (02) 4221 3386 or email [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au).

Thank you for your interest in this study.

## CONSENT FORM FOR PROGRAM EVALUATION

Research Title: *Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems*

Researchers: Trevor Crowe & Elly Bailey

I have been given information about *Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems* and discussed the research project with Trevor Crowe and Elly Bailey, who are conducting this research. I have been advised of the potential risks and burdens associated with this research, and have had an opportunity to ask the researchers any questions I may have about the research and my participation.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research at any time. I understand that if I withdraw from the *Me and My Relationships* program prematurely, I can choose to withdraw any previously collected data. I understand that I can choose to participate in the *Me and My Relationships* program and not this study. I understand that my refusal to participate or withdrawal of consent will not affect my relationship with the program provider or the University of Wollongong.

If I have any enquiries about the research, I can contact Trevor Crowe (4221 3147) and/or Elly Bailey (4221 4207). If I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on 4221 3386 or email [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au).

By signing below I am indicating my consent to allow researchers access to the data collected as part of my participation in the *Me and My Relationships* program. This data includes:

1. My demographic information
2. My written questionnaire responses
3. The transcript of the 'relationships' sections of the intake interview and follow up interview

I understand that the data collected from my participation will be used for reports about the development and evaluation of this program that may be published in research journals and used in a PhD thesis, and I consent for it to be used in that manner.

Name

.....

Date

...../...../.....

Signature

.....

## Appendix E: Article based on Study 2

### Profiles of Interpersonal Problems in Mental Health Carers

Interpersonal problems have been defined as difficulties encountered when interacting, or attempting to interact with others (Horowitz, 1979; Leary, 1957). Central to work within the field of interpersonal problems is the empirically established model of the interpersonal problems circumplex (Alden et al, 1990; Horowitz et al, 2006). The interpersonal problems circumplex organises interpersonal dispositions graphically according to two principal dimensions: 1) affiliation, which ranges from hostile behaviour to friendly behaviour, and 2) control, that ranges from yielding behaviour to controlling behaviour. Interpersonal problems correspond to combinations of these two dimensions, with eight domains of behaviour defined. Each domain describes a different interpersonal theme, namely: Domineering/Controlling, Vindictive/Self-centred, Cold/Distant, Socially Inhibited, Non-assertive, Overly Accommodating, Self-sacrificing and Intrusive/Needy.

The interpersonal circumplex assumes an interconnection between psychopathology and interpersonal disposition and offers a unique way to appreciate conceptual similarities and differences among groups. The interpersonal circumplex has been used to conceptualise the interpersonal problems experienced in relationship dyads across a range of contexts, such as parent-child relationships and romantic relationships (Wilson et al, 2013), heterosexual and homosexual relationships (Lee et al, 2013), as well as clinical groups such as depressed individuals (Barrett and Barber, 2007), anxious individuals (Salzer et al, 2011), personality disorders (Salzer et al, 2013), drug use (Klimas, 2014) and alexithymia (Ghiabi and Besharat, 2011).

Mental health carers often have difficulties in their relationship with the person for whom they are caring (Acevedo Callejas and Thompson, 2017; Spector et al, 2016; Yesufu-Udechuku et al, 2015). However, there is no published research that has utilised the interpersonal problems circumplex as a means of conceptualising and understanding mental health carer relationships.

Mental health carers are defined as individuals who 'provide ongoing personal care, support and assistance to any other individual who needs it because that individual has a mental illness' (Carers Recognition Act, 2010: 4). As of 2015 there were 2.8 million carers within Australia, of whom 8.6% were mental health carers (Australian Bureau of Statistics, 2015). Furthermore, this is likely to be an underestimate considering the prevalence of mental health difficulties in the general population: one in five Australians (aged 16-85 years) experience mental illness in any year (Australian Bureau of Statistics, 2007). The literature on mental health caregiving to date has focused on the themes of carer burden and need, with limited attention towards the carer relationship for better understanding carer needs and outcomes (Penning and Zheng, 2016). This is somewhat surprising given findings that the quality of the relationship between the carer and care receiver has a direct influence on caregiver coping and whether continued care is provided (Spruytte et al, 2001).

The protective benefits of positive carer/care receiver relationships have been suggested across numerous studies. For example, connection and attunement have been linked to carer coping and resiliency (Wadham et al, 2016). Intimacy and love have been associated with lower levels of carer psychotic symptoms and burden (Braithwaite, 2000). Positive ratings of the relationship have been associated with lower levels of carer stress and depression (Oyebode, 2003).

The carer-care receiver relationship undergoes significant changes as the caregiving role is initiated (Oyebode, 2003), with boundaries, expectations and complicated grief (Campling and Jones, 2001) being common problem themes. Mental health carers

interpersonal problems have yet to be examined systematically using established frameworks such as the interpersonal problems circumplex. The interpersonal problems circumplex allows for an understanding of interpersonal problems in terms of overall severity and more specific types of problems experienced in eight domains. It has been suggested that measuring only the mean interpersonal problems of a population group neglects individual differences (Salzer et al, 2011). Consequently a particular interest in the present study is clarifying the percentage of mental health carers experiencing high severity and particular configurations of the eight domains of interpersonal problems. Knowledge about the prevalence of such problems may inform individualized treatment planning, given that interpersonal problems have been shown to predict response to intervention (Horowitz et al, 2000).

Mental health carers are a diverse group and the implications of socio-demographic characteristics on interpersonal problems needs to be considered. This paper focusses on two variables repeatedly identified as holding significance: the duration of the caring relationship and the type of relationship between the carer and care-receiver. The duration of time that caregivers have supported the care-receiver is a factor acknowledged to influence the impact of caring (Savage and Bailey, 2004). Mental health carers have a role that is inherently different to other caring contexts in that it is typically episodic and of a longer duration (Broady and Stone, 2015). The average length of caring for mental health caregivers is 8.7 years, in comparison to the average length for caregivers of any kind of condition/illness which is 4 years (Weber-Raley, 2016). Within Australia, approximately one in two (49.2%) principal mental health carers have been in their role for greater than ten years (Australian Bureau of Statistics, 2012).

There are competing hypotheses regarding how duration of care may impact caregivers. The “wear and tear” hypothesis proposes that the longer caregiving is sustained, the greater the deterioration in caregiver mental health and wellbeing (Townsend et al, 1989). The adaption hypothesis proposes that the new demands of caregiving lead to an initial decrease in carer wellbeing, though there is a stabilising or improvement in functioning as caregivers learn to cope effectively with the role (Haley and Pardo, 1989; Townsend et al, 1989). The trait hypothesis proposes that caregivers maintain a consistent level of adaption, due to pre-existing coping skills and resources (Haley and Pardo, 1989). Each of these theories has different implications for the effects of caring duration on carer wellbeing and coping. Due to the prevalence of Australian mental health carers who have been in their role longer term (i.e., greater than ten years), of particular interest in the present study is how interpersonal problems for such carers differ from those caring shorter term (i.e., less than ten years).

A second significant socio-demographic characteristic is the relationship of the carer to the care-receiver. Parents, spouses, adult children and non-relatives may experience caregiving differently due to differences in prior expectations, dependencies and relationship dynamics. Comparative studies have sought to determine those types of carers most at risk for diminished wellbeing- with findings consistently indicating that caring for a spouse is associated with greater risk of burden, depression and diminished subjective wellbeing as compared to those caring for a child and/or parent (Kim et al, 2012). It has been suggested that spouse caregiving is a unique experience, marked by significant emotion pressure, isolation and attempts to accommodate the caring role into the existing romantic relationship (Lawn and McMahon, 2014). However, such comparative studies are based on carers as a whole (or particular subgroups such as dementia carers), with little specific research on mental health carers. When dyadic associations are considered (i.e., relationship type and care receiver disability); parents caring for a child with mental illness have been indicated as holding the lowest levels of subjective wellbeing (Hammond et al, 2014). This suggests that

when considering mental health carers, the subgroup of parent carers may be at particular risk.

The factors of duration of caring and relationship type hold significance for mental health carers' experiences, though the impact of these factors on interpersonal problems remains unclear. Considering the importance of the relationship to caregiving outcomes, understanding the unique interpersonal difficulties experienced by subgroups of mental health carers is vital. Comprehensive evaluation of interpersonal problems will allow for the identification of domains of interpersonal significance for shorter term vs longer term carers, and for those caring for a parent and spouse.

### *Aims*

The purpose of this study is to examine the interpersonal problems of mental health carers from the perspective of the interpersonal circumplex. This is predominately an exploratory study, in an area with little previous work. Our research questions are:

1. Is the severity of interpersonal problems present in mental health carers greater than that in a community sample?
2. Are specific domains of interpersonal problems more prevalent in mental health carers than in a community sample?
3. Is duration of caring associated with severity or domains of interpersonal problems in mental health carers?
4. Is relationship type (parent and spouse) associated with severity or domains of interpersonal problems in mental health carers?

## Methods

### *Design and sample*

This study had a cross-sectional survey design. Participants were mental health carers currently residing in Australia, with recruitment taking place during late 2015 to 2016. Data collection occurred through Australian-based mental health carer support agencies, who were contacted by email with a request to advertise the survey to their current clients.

Advertisement took place in the form of email invitations, website posting and/or flyers displayed in the office of the relevant mental health carer agency. Participants accessed the survey online via Questionpro.com. To capture the views of participants without internet access, paper copies of the survey were provided to carer support agencies. For all routes of data collection the participant information sheet presented the survey as "researching mental health carers' relationships and coping styles" in order to avoid bias due to those self-identifying as having interpersonal problems being more likely to participate.

### *Measures*

Interpersonal problems were assessed using the short form of the Inventory of Interpersonal Problems (Leonard et al, 1988; Horowitz et al, 2000). The IIP-32 is a self-report instrument that identifies a person's most salient interpersonal difficulties. It contains 32 items that produce eight subscales; mapping onto the domains of the Interpersonal Circumplex. Items are divided into two sections: behaviours that are "hard for you to do" (e.g., "It is hard for me to show affection to people") and behaviours that "you do too much" (e.g., "I try to control other people too much"). Ratings of the degree to which each problem is distressing are made on a 5-point scale, ranging from Not at all (0) to Extremely (4).

By converting raw-scores to T-scores based on population norms, the IIP-32 provides a rating of a person's overall interpersonal distress, as well as that within specific domains of interpersonal functioning. IIP-32 norms are based on a stratified (age by race/ethnicity by level of education distribution) random sample drawn from a US national survey of 400

females and 400 males ( $n = 800$ ). A T score of 60 reflects one standard deviation above the mean and indicates an above average score. A T-score of 70 reflects two standard deviations above the mean and suggests significant difficulty. The IIP has high internal reliability with Cronbach's alphas ranging from .68 (Intrusive/Needy) to .87 (Cold/Distant) for individual domains and Cronbach's alpha for total scales at .93 (Horowitz et al, 2000). Test retest reliability ranges from .57 to .82 (Horowitz et al, 2000). In the current sample internal consistency was excellent,  $\alpha = .93$ . The following socio-demographic data was collected: age, gender, relationship to the person caring for, length of time in caring role and care-receivers mental health condition.

### *Ethical considerations*

This study was approved by the University of Wollongong Human Research Ethics Committee. All participants indicated consent by choosing to proceed through the Informed Consent Page on the survey. Participant's data was marked with a code, enabling datasets to be identified and withdrawn if carers chose to withdraw from the study at a later date.

### Analysis

Initially T-scores for each of the IIP-32 domains and the IIP-32 total score were determined according to published scoring algorithms (Horowitz et al, 2000). To test the hypothesis that mental health carers would have higher interpersonal problems than a community sample, group differences on the mean IIP-32 total and domain scores were examined using nine independent samples t-tests. T-scores and p values were calculated using the online calculator <http://www.quantitativeskills.com/sisa/statistics/t-test.htm>. and effect sizes for each comparison were calculated using <http://www.socscistatistics.com/effectsize/Default3.aspx> both accessed 26 April 2017. Information provided on the community sample consisted of means with no access to the full data set. Thus, further examination with non-parametric tests was not possible.

We also examined the proportion of mental health carers experiencing interpersonal problems of 'above average' difficulty ( $T \geq 60$ ) and interpersonal problems of 'significant difficulty' ( $T \geq 70$ ). These proportions were compared to those of the 800 participant standardized community sample (Horowitz et al, 2000). Information on the community sample consisted of proportions only, with no access to the full data set- thus limiting options for further analysis.

To explore socio-demographic characteristics, we commenced by defining our groups. The variable duration of caring was divided into two categories of relatively equal numbers: shorter term carers (defined as those caring for less than ten years) and longer term carers (defined as those caring for greater than ten years). For the variable of relationship type, we chose to focus on the two largest groups; partners and spouses due to small sample sizes of the remaining groups. Differences between subgroups for each interpersonal problem domain were assessed using Chi-Square. Given the early stage of this research, statistical significance was set as  $p < 0.05$ . Statistical analyses were performed using the Statistical Package for the Social Sciences version 21 (SPSS).

### Results

#### *Demographic characteristics of sample*

A total of 140 online questionnaires were obtained, of which 127 were complete. A total of 13 participants were not included due to missing data in the set of questionnaires. A total of 20 paper questionnaires were completed and all were accepted for the study. Table 1 provides the demographic characteristics of the 147 participants included in this study.



Table 1  
*Demographic characteristics of sample*

Category	Frequency (%)
Sex	
Female	130 (88%)
Male	17 (12%)
Age	
18-26	2 (1%)
27-50	54 (37%)
51-74	85 (58%)
75+	6 (4%)
Relationship to care-receiver	
Spouse	30 (20.5%)
Parent	80 (54.5%)
Sibling	9 (6%)
Child	18 (12%)
Other relative	2 (1.5%)
Friend	3 (2%)
Foster carer	5 (3.5%)
Length of time caring	
1-3 years	19 (13%)
3-6years	22 (15%)
6-10 years	24 (16%)
10+ years	82 (56%)
Mental Health Condition of care-receiver (as identified by carer)	
Depression	28 (19%)
Bipolar	35 (24%)
Anxiety	30 (20%)
Post Traumatic Stress Disorder	14 (9%)
Borderline Personality Disorder	22 (15%)
Other personality disorder	8 (5%)
Schizophrenia	34 (23%)
Substance use	8 (5%)

*Note.* Total frequency of mental health conditions is greater than sample size (n=147) due to multiple diagnoses being able to be endorsed

#### *The interpersonal profile of Mental Health Carers*

Mental health carers displayed higher interpersonal problems than a community sample on 7 of 8 domains: Vindictive/Self-Centered, Cold/Distant, Socially Inhibited, Non-assertive, Overly Accommodating, Self-Sacrificing and Intrusive/Needy. Mental health carers also displayed higher overall interpersonal problems than the community sample as indicated by the total IIP score. Table 2 and Figure 1 display the mean scores for mental health carers in comparison to the community sample. Caution is needed in interpreting these results due to mild to moderate skewness for some variables. Specifically, three of the IIP-32 domains were positively skewed; domineering/controlling (skewness coefficient 1.40), vindictive/self-

centered (skewness coefficient 1.45) and intrusive/needy (skewness coefficient 1.00).

Table 2  
*Severity of Interpersonal problems (IIP-32) for mental health carers and a community sample*

Domain	Community mean <sup>a</sup> (n=60)	SD	Overall MHC mean (n=147)	SD	T-value	Cohen's d	Cronbach's alpha <sup>b</sup>
Domineering/Controlling	49.8	10.2	51.8	10.0	-1.29	0.20	.65
Vindictive/Self-Centered	49.0	10.2	52.2	11.3	-2.01*	0.30	.89
Cold/Distant	49.5	9.7	53.4	11.5	-2.51*	0.37	.88
Socially Inhibited	50.3	10.4	56.3	13.1	-3.47**	0.51	.90
Non-assertive	51.3	8.3	58.3	12.5	-4.67**	0.65	.89
Overly Accommodating	51.0	9.7	58.1	11.8	-4.49**	0.63	.74
Self-Sacrificing	50.2	10.1	59.6	11.8	-5.79**	0.86	.83
Intrusive/Needy	50.1	8.6	55.5	12.0	-3.63**	0.52	.74
Total IIP Score	50.2	10.0	58.2	11.5	-5.00**	0.74	.93

Note.

\*  $p < .05$ , \*\*  $p < .001$

<sup>a</sup> T-score norms from community sample for IIP-32 (Table 5.3, Horowitz 2002)

<sup>b</sup> Derived from item level responses

IIP-32 (Inventory of Interpersonal Problems 32); MHC (Mental Health Carer)

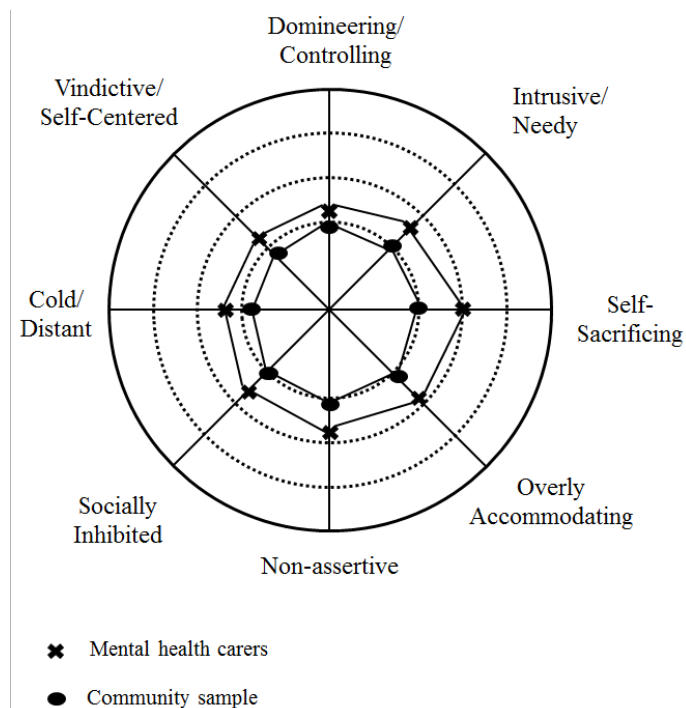


Figure 1. Severity of Interpersonal problems (IIP-32) for mental health carers (n = 147) and a community sample (n = 60)

The proportion of mental health carers experiencing interpersonal problems of above average difficulty ( $T \geq 60$ ) was greater than the community sample on the following domains: Vindictive/Self-Centered, Cold/Distant, Socially Inhibited, Non-assertive, Overly Accommodating, Self-Sacrificing, Intrusive/Needy, as well as the total IIP32 score. The proportion of mental health carers experiencing clinically significant interpersonal problems

( $T \geq 70$ ) was greater than community sample on all domains as well as the total IIP-32 score. Table 3 displays all proportions.

Table 3  
*Proportions of Interpersonal problems of mental health carers (n=147) compared to community sample (n=800)*

Domain	Above Average Difficulty (T-score $\geq 60$ )		Significant difficulty (T-score $\geq 70$ )	
	Community sample	Mental health carers	Community sample	Mental health carers
Domineering/Controlling	15.6%	14.3%	4.5%	5.4%
Vindictive/Self-Centered	15.5%	19.0%	6.1%	11.6%
Cold/Distant	18.1%	32.0%	5.7%	6.8%
Socially Inhibited	17.7%	36.7%	5.6%	15.6%
Non-assertive	17.7%	45.6%	4.6%	17.7%
Overly Accommodating	19.4%	49.0%	3.2%	21.1%
Self-Sacrificing	17.2%	52.4%	5.0%	19.7%
Intrusive/Needy	16.4%	26.5%	5.6%	12.2%
Total IIP Score	17.7%	43.5%	4.1%	17.7%

*Interpersonal problems as a function of length of caring*

Differences in interpersonal problems were assessed between shorter term and longer term carer group using nonparametric Mann-Whitney U given that some variables were skewed. A small but significant difference was found between groups for the Vindictive/Self-centered domain with longer term carers scoring higher than shorter term carers in this domain ( $Z = -2.52$ ,  $p = .012$ ).

The percentage of mental health carers experiencing significant interpersonal difficulty (T-score  $\geq 70$ ) was compared across the shorter and longer term groups. These proportions were examined using Chi-square tests and are presented in Table 4. Longer term carers had a significantly higher proportion of people experiencing significant interpersonal problems in the Vindictive/Self-centered domain than shorter term carers. A significantly higher proportion of shorter term carers were experiencing significant interpersonal problem in the Overly Accommodating domain.

Table 4  
*Proportions of significant interpersonal problems for shorter term (n = 65) and longer term (n = 82) mental health carer groups*

Domain	Shorter term		Longer term	
	N	%	N	%
Domineering/Controlling	4	6.2	4	4.9
Vindictive/Self-Centered <sup>a</sup>	3	4.6	14	17.1*
Cold/Distant	4	6.2	6	7.3
Socially Inhibited	9	13.8	14	17.1
Non-assertive	15	23.1	11	13.4
Overly Accommodating <sup>b</sup>	19	29.2*	12	14.6
Self-Sacrificing	8	12.3	21	25.6
Intrusive/Needy	6	9.2	12	14.6
Total IIP Score	10	16.7	16	19.5

Note.

\* $p < 0.05$ , 2-tailed

<sup>a</sup>  $\chi^2 (n = 147, df = 1) = 5.50, p = 0.02$  (Fishers Exact Test).

<sup>b</sup>  $\chi^2 (n = 147, df = 1) = 4.64, p = 0.03$

Figure 2 displays an example of an individual profile for one shorter term carer and one longer term carer in our sample. It is provided as an example of how profiles can vary between individuals.

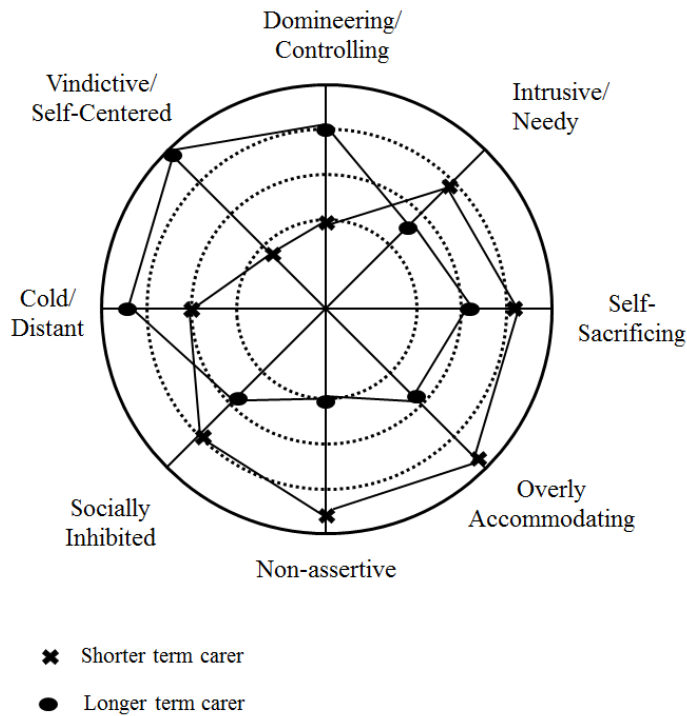


Figure 2. Individual data points for a shorter term carer vs longer term mental health carer

#### *Interpersonal problems as a function of relationship type*

Nine Friedman's tests were conducted to look for significant differences across the subgroups of parents and spouses, with no significant differences found. Proportions of those with significant interpersonal problems ( $T \geq 70$ ) were examined across these groups, with no significant differences in the proportions between groups for any of the interpersonal problems domains.

#### Discussion

Findings indicate that mental health carers experience significantly higher relational difficulties as compared to a community sample. Severity of interpersonal problems as well as seven of the eight domains were significantly higher for mental health carers compared to a community sample. The proportions of mental health carers suffering from severe interpersonal problems were also higher. Approximately 3-6% of the non-clinical population obtain scores indicating significant difficulty with interpersonal problems (Horowitz et al, 2000). In our study, 17.7% of mental health carers obtained scores indicating significant difficulty. This finding has implications for the type of support needed by mental health carers. Community support for mental health carers most commonly takes the form of psychoeducation, support groups and counselling, and are designed in response to perceived

caregiver burden (Savage, 2002). Our findings indicate that in the present sample, nearly one in five of mental health carers are in need of significant support for interpersonal problems- highlighting the need for interventions designed in response to interpersonal needs.

The two domains with the highest proportion of mental health carers experiencing significant difficulties were Overly Accommodating (21.1%) and Self-Sacrificing (19.7%). Thus, findings indicate these domains may be areas of particular vulnerability/risk for a notable proportion of mental health carers. The Overly Accommodating domain also held significance when considering duration of care. Shorter term carers scored higher on the Overly Accommodating domain, whereas longer term carers scored higher on the Vindictive/Self-Centered domain.

The Overly Accommodating domain reflects an excess of friendly submissiveness; such individuals are reluctant to express anger or disagreement, are fearful of offending others, and are easily taken advantage of (Horowitz et al, 2000). The Self Sacrificing domain reflects excesses of affiliation; such individuals find it hard to set boundaries and describe themselves as 'too trusting and permissive' (Leonard et al, 1988; Horowitz et al, 2000). The Vindictive/Self-Centered domain reflects an excess of hostile dominance; such individuals find it hard to feel empathy towards others or support others' goals and readily express anger (Horowitz et al, 2000).

Interventions for interpersonal problems are pluralistic and employ techniques depending on the nature of the individual's interpersonal profile (Cain et al, 2010). The established framework of interpersonal problems provides treatment directions for each domain. Studies indicate that interpersonal problems related to the Overly Accommodating and Self Sacrificing domains respond most favourably to skills training and graded exposure (Alden and Capreol, 1993). Interpersonal problems in the Vindictive/Self-Centered domain respond most favourably to concrete, action orientated approaches such as behavioural therapy (Newman et al, 2017) with an emphasis on experiential participation and self-direction (Beutler et al, 1993). However, interpersonal problems in this area have been identified as the least amendable to change and have also been associated with poorer therapeutic alliance and outcomes (Cain et al, 2010; Horowitz et al, 1993; Renner et al, 2012). On a positive note, research has consistently indicated that individuals with interpersonal problems related to being 'Overly Accommodating' experience the most gains from psychotherapy (Cain et al, 2010; Horowitz et al, 1993; Locke et al, 2017) and find it easier to form a positive therapeutic alliance (Puschner et al, 2005; Renner et al, 2012). This suggests that the domain that is problematic for the largest proportion of mental health carers is likely to be amendable to change.

Findings from the current study suggest that interventions for shorter term carers may best incorporate support for Overly Accommodating behaviours, whereas support for longer term carers may require a focus on Vindictive/Self-Centered behaviours. For those carers experiencing significant interpersonal problems, individualized assessment would allow for such treatment to be tailored to a mental health carer's unique profile. For example, the shorter term carer who is Overly Accommodating in Figure 2 might benefit from skills training particularly around assertiveness, and may be a suitable candidate for group therapy due their ability to form positive alliances. The longer term carer who is high on interpersonal problems in the Vindictive/Self-Centered domain might benefit from individual behavioural therapy focused on anger management and social connectedness.

Overall, whilst two of the eight domains showed variation according to duration of caregiving, the majority of interpersonal problem domains were of equivalent severity regardless of time in the caring role. This result is consistent with the trait hypothesis of caring- which argues that pre-existing coping skills and resources enable carers to maintain a consistent level of adaption over time. When considering relationship type, our findings did

not indicate any significant differences in the severity or type of interpersonal problems experienced by parent mental health carers as opposed to spouses. In light of prior research indicating the comparatively low wellbeing of parent mental health carers (Hammond et al, 2014), our findings suggest that the unique strain of specific roles may not be related to the severity of interpersonal problems or types of interpersonal problems experienced.

Findings provide some insight into the types of interpersonal problems experienced by mental health carers and different foci of these problems for those with shorter versus longer term caring duration. Whilst this data considered mental health carer interpersonal problems on a normative level, one of the strengths of the interpersonal circumplex approach lies with its ability to provide an individualised profile. Individualized assessment allows for an understanding of a mental health carers specific interpersonal pattern and domains of risk. The standardized and validated, Inventory of Interpersonal Problems provides a link between assessment, theory and intervention allowing the identification of treatment directions relevant for a particular individual's profile.

There are several limitations to our study that should be noted. The sample size cannot be seen to represent all mental health carers and due to the survey method we are unable to clearly determine the representativeness of the sample. As recruitment occurred through carer support agencies, it is possible that our sample over-represents treatment seekers who may display higher distress than those mental health carers not familiar to support agencies. Our sample was comprised of a high proportion (88%) of female mental health carers as is common for mental health carers (eg 84% female: Broady and Stone, 2015) and Australian carers more generally (eg 85% female: Hussain et al, 2016). However, the effect of gender needs to be considered. Although the IIP-32 converts scores into standardized T-scores based on gender norms, particular domains have been indicated as more frequently occurring in women, such as the Self-Sacrificing domain (Horowitz et al, 2000). A further limitation of the present study was that duration of caring data was categorical and thus we could not run correlation analysis between duration of caring and interpersonal problem domains. Current findings do not provide guidance as to the duration of caregiving before differences in the Overly Accommodating domain or Vindictive/Self-Centered domain emerge. Although a 10 year cut off was chosen in part because approximately 50% of all Australian carers had been in their role for 10 years or more (Australian Bureau of Statistics, 2012), this cut-off is still somewhat arbitrary. In the present study it allowed approximately equal numbers of carers in each group, but other duration categories should be considered in future research that involves larger samples.

Future research in this area could look into factors that moderate or predict levels of interpersonal problems in mental health carers. For example, several theories of interpersonal problems point to the role of avoidance in contributing to, or perpetuating dysfunction (Holtforth, 2008; Holtforth et al, 2006; Sullivan, 1953). Furthermore, the domains of most prevalence for mental health carers- Overly Accommodating and Self-Sacrificing- are both marked by characteristics of avoidance. Problems in the Overtly Accommodating domain centre on the avoidance of assertiveness, where problems in the Self-Sacrificing domain centre on the avoidance of anger (Horowitz et al, 2000). Thus, the potential relationship between avoidance and mental health carers' interpersonal problems represents an area for further investigation.

*Declaration of interest:* This research has been conducted with the support of the Australian Government Research Training Program Scholarship.

## References

- Acevedo Callejas, M.L. and Thompson, C.M. (2017) 'Stress, frequency of challenges, and coping for partners of individuals with mental health conditions', *Health Communication*, 32(7): 880-9.
- Alden, L.E., Wiggins, J.S. and Pincus, A.L. (1990) 'Construction of circumplex scales for the Inventory of Interpersonal Problems', *Journal of Personality Assessment*, 55(3-4): 521-36.
- Alden, L.E. and Capreol, M.J. (1993) 'Avoidant personality disorder: Interpersonal problems as predictors of treatment response', *Behavior Therapy*, 24(3): 357-76.
- Australian Bureau of Statistics (2007) *National survey of mental health and wellbeing: Summary of results* (Cat. No. 4327.0). Belconnen, Australia.
- Australian Bureau of Statistics (2012) *Survey of Disability, Ageing and Carers* (Cat. No. 4430.0). Belconnen, Australia.
- Australian Bureau of Statistics (2015) *Survey of Disability, Ageing and Carers* (Cat. No. 4430.0). Belconnen, Australia.
- Barrett, M.S. and Barber, J.P. (2007) 'Interpersonal profiles in major depressive disorder', *Journal of Clinical Psychology*, 63(3): 247-66.
- Beutler, L.E., Machado, P.P., Engle, D. and Mohr, D. (1993) 'Differential patient × treatment maintenance among cognitive, experiential, and self-directed psychotherapies', *Journal of Psychotherapy Integration*, 3(1): 15-31.
- Braithwaite, V. (2000) 'Contextual or general stress outcomes: Making choices through caregiving appraisals', *The Gerontologist*, 40(6): 706-17.
- Broady, T.R. and Stone, K. (2015) "'How can I take a break?'" Coping strategies and support needs of mental health carers', *Social Work in Mental Health*, 13(4): 318-35.
- Cain, N.M., Pincus, A.L. and Holtforth, M.G. (2010) 'Interpersonal Subtypes in Social Phobia: Diagnostic and Treatment Implications', *Journal of Personality Assessment*, 92(6): 514-27.
- Carers Recognition Act 2010* (NSW) Available from <https://www.legislation.nsw.gov.au/#/view/act/2010/20/whole>
- Ghiabi, B. and Besharat, M.A. (2011) 'Emotional Intelligence, Alexithymia, and Interpersonal Problems', *Procedia - Social and Behavioral Sciences*, 30: 98-102.
- Haley, W.E. and Pardo, K.M. (1989) 'Relationship of severity of dementia to caregiving stressors', *Psychology and Aging*, 4(4): 389-92.
- Hammond, T., Weinberg, M.K. and Cummins, R.A. (2014) 'The dyadic interaction of relationships and disability type on informal carer subjective well-being', *Quality of Life Research*, 23: 1535-42.
- Holtforth, M.G., Bents, H., Mauler, B. and Grawe, K. (2006) 'Interpersonal distress as a mediator between avoidance goals and goal satisfaction in psychotherapy inpatients', *Clinical Psychology and Psychotherapy*, 13(3): 172-82.
- Holtforth, M.G. (2008) 'Avoidance motivation in psychological problems and psychotherapy', *Psychotherapy Research*, 18(2): 147-59.
- Horowitz, L. (1979) 'On the cognitive structure of interpersonal problems treated in psychotherapy', *Journal of Consulting and Clinical Psychology*, 47(1): 5-15.
- Horowitz, L., Wilson, K.R., Turan, B., Zolotsev, P., Constantino, M.J. and Henderson, L. (2006) 'How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model', *Personality and Social Psychology Review*, 10(1): 67-86.
- Horowitz, L., Alden, L., Wiggins, J. and Pincus, A. (2000) *IIP, Inventory of Interpersonal Problems Manual*. San Antonio, TX: The Psychological Corporation.

- Horowitz, L.M., Rosenberg, S.E. and Bartholomew, K. (1993) 'Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy', *Journal of Consulting and Clinical Psychology*, 61(4): 549-60.
- Hussain, R., Wark, S., Dillon, G. and Ryan, P. (2016) 'Self-reported physical and mental health of Australian carers: A cross-sectional study', *BMJ Open*, 6(9): 1-10.
- Kim, H., Chang, M.D., Rose, K. and Kim, S. (2012) 'Predictors of caregiver burden in caregivers of individuals with dementia', *Journal of Advanced Nursing*, 68(4): 846-55.
- Klimas, J. (2014) 'Correlates of interpersonal problems among current and former drug users in Slovakia', *Journal of Substance Use*, 19(3): 268-73.
- Lawn, S. and McMahon, J. (2014) 'The importance of relationship in understanding the experiences of spouse mental health carers', *Qualitative Health Research*, 24(2): 254-66.
- Leary, T. (1957) *Interpersonal Diagnosis of Personality: A Functional Theory and Methodology for Personality Evaluation*. New York: Ronald Press.
- Lee, D.L., Harkless, L.E., Sheridan, D.J., Winakur, E. and Fowers, B.J. (2013) 'Sex Differences in Interpersonal Problems: Does Sexual Orientation Moderate?', *Journal of Psychology*, 147(1): 75-87.
- Locke, K.D., Sayegh, L., Penberthy, J.K., Weber, C., Haentjens, K. and Turecki, G. (2017) 'Interpersonal circumplex profiles of persistent depression: Goals, self-efficacy, problems, and effects of group therapy', *Journal of Clinical Psychology*, 73(6): 595-611.
- Mohamed, S., Rosenheck, R., Lyketsos, C.G. and Schneider, L.S. (2010) 'Caregiver burden in Alzheimer disease: Cross-sectional and longitudinal patient correlates', *The American Journal of Geriatric Psychiatry*, 18(10): 917-27.
- Newman, M.G., Jacobson, N.C., Erickson, T.M. and Fisher, A.J. (2017) 'Interpersonal Problems Predict Differential Response to Cognitive Versus Behavioral Treatment in a Randomized Controlled Trial', *Behavior Therapy*, 48: 56-68.
- Oyebode, J. (2003) 'Assessment of carers' psychological needs', *Advances in Psychiatric Treatment*, 9(1), 45-53.
- Penning, M.J. and Zheng, W. (2016) 'Caregiver stress and mental health: Impact of caregiving relationship and gender', *Gerontologist*, 56(6): 1102-13.
- Pincus, A.L. and Wiggins, J.S. (1990) 'Interpersonal problems and conceptions of personality disorders', *Journal of Personality Disorders*, 4(4): 342-52.
- Puschner, B., Bauer, S., Horowitz, L.M. and Kordy, H. (2005) 'The relationship between interpersonal problems and the helping alliance', *Journal of Clinical Psychology*, 61(4): 415-29.
- Renner, F., Jarrett, R.B., Vittengl, J.R., Barrett, M.S., Clark, L.A. and Thase, M.E. (2012) 'Interpersonal problems as predictors of therapeutic alliance and symptom improvement in cognitive therapy for depression', *Journal of Affective Disorders*, 138(3): 458-67.
- Salzer, S., Streeck, U., Jaeger, U., Masuhr, O., Warwas, J., Leichsenring, F. and Leibing, E. (2013) 'Patterns of Interpersonal Problems in Borderline Personality Disorder', *Journal of Nervous and Mental Disease*, 201(2): 94-8.
- Salzer, S., Winkelbach, C., Leibing, E., Pincus, A.L. and Leichsenring, F. (2011) 'Interpersonal subtypes and change of interpersonal problems in the treatment of patients with generalized anxiety disorder: A pilot study', *Psychotherapy*, 48(3): 304-10.
- Savage, S. (2002) *An overview of the literature on sustaining caring relationships*. Australian Capitol Territory: Deakin University and Department of Human Services.



- Savage, S. and Bailey, S. (2004) 'The impact of caring on caregivers' mental health: A review of the literature', *Australian Health Review*, 27(1): 111-17.
- Spector, A., Charlesworth, G., Orrell, M. and Marston, L. (2016) 'Factors influencing the person–carer relationship in people with anxiety and dementia', *Aging and Mental Health*, 20(10): 1055-62.
- Sullivan, H. S. (1953) *The Interpersonal Theory of Psychiatry*. New York: Norton.
- Townsend, A., Noelker, L., Deimling, G. and Bass, D. (1989). 'Longitudinal impact of interhousehold caregiving on adult children's mental health', *Psychology and Aging*, 4(4): 393-401.
- Wadham, O., Simpson, J., Rust, J. and Murray, C. (2016) 'Couples' shared experiences of dementia: A meta-synthesis of the impact upon relationships and couplehood', *Aging and Mental Health*, 20(5): 463-73.
- Weber-Raley L. (2016) *On Pins and Needles: Caregivers of Adults with Mental Illness*. National Alliance for Caregiving.
- Wilson, S., Revelle, W., Stroud, C.B. and Durbin, C.E. (2013) 'A confirmatory bifactor analysis of the Inventory of Interpersonal Problems--Circumplex and associations of interpersonal traits across multiple relationship contexts and measures', *Psychological Assessment*, 25(2): 353-65.
- Yesufu-Udechuku, A., Harrison, B., Mayo-Wilson, E., Young, N., Woodhams, P., Shiers, D., . . . Kendall, T. (2015) 'Interventions to improve the experience of caring for people with severe mental illness: Systematic review and meta-analysis', *British Journal of Psychiatry*, 206(4): 268-74.

## Appendix F: Ethics approval for Studies Two and Three



### APPROVAL LETTER

In reply please quote: HE15/329

28 August 2015

Dr Trevor Crowe  
iiMH  
Bld 22  
University of Wollongong

Dear Dr Crowe

Thank you for your response dated 24 August 2015 to the HREC review of the application detailed below. I am pleased to advise that the application has been approved.

Ethics Number: HE15/329

Project Title: The Relationship between Interpersonal Problems & Experiential Avoidance in carer population

Researchers: Dr Trevor Crowe, Professor Peter Caputi, Miss Elly Bailey

#### Documents Approved:

1. Ethics Application
2. Response dated 20/08/2015
3. Participant Information Sheet/Consent Page Version 2 – 20/08/2015
4. Recruitment Email Version 2 – 20/08/2015
5. Recruitment Flyer Version 2 – 20/08/2015
6. Measures Version 1 – 03/08/2015
7. The Brief Experiential Avoidance Questionnaire (BEAQ) Version 1 – 03/08/2015
8. The Aggression Questionnaire Version 1 – 03/08/2015
9. Experiential Avoidance in Caregiving Questionnaire (EACQ) Version 1 – 03/08/2015
10. Inventory of Interpersonal Problems 32 Version 1 – 03/08/2015
11. QuestionPro It is recommended for Privacy reasons not to use private phone numbers. Policy Version 1 – 03/08/2015

Approval Date: 27 August 2015

Expiry Date: 26 August 2016

The University of Wollongong/Illawarra Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC *National Statement on Ethical Conduct in Human Research*. The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document.

Ethics Unit, Research Services Office  
University of Wollongong NSW 2522 Australia  
Telephone (02) 4221 3388 Facsimile (02) 4221 4338  
Email: [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au) Web: [www.uow.edu.au](http://www.uow.edu.au)

Approval by the HREC is for a twelve month period. Further extension will be considered on receipt of a progress report prior to expiry date. Continuing approval requires:

- The submission of a progress report annually and on completion of your project. The progress report template is available at <http://www.uow.edu.au/research/ethics/human/index.html>. This report must be completed, signed by the researchers and the appropriate Head of Unit, and returned to the Research Services Office prior to the expiry date.
- Approval by the HREC of any proposed changes to the protocol including changes to investigators involved
- Immediate report of serious or unexpected adverse effects on participants
- Immediate report of unforeseen events that might affect continued ethical acceptability of the project.

If you have any queries regarding the HREC review process, please contact the Ethics Unit on phone 4221 3386 or email [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au).

Yours sincerely



Associate Professor Melanie Randle  
Chair, UOW Social Sciences  
Human Research Ethics Committee

## **Appendix G: Email for Data Recruitment Studies Two and Three**

Dear Sir/Madam,

I am writing to invite you to participate in a study on carers relationships. The study is being conducted by researchers at the University of Wollongong as part of my PhD.

We are looking for carers of those with a mental illness to take part in the research. If you choose to participate, you will be invited to complete an online survey. The survey contains measures of experiential avoidance, interpersonal problems, and negative perceptions & expectations of interpersonal relationships. You will be asked to answer questions regarding your perceptions of the nature of your relationships and coping styles. We anticipate that the survey will take approximately 20-30 minutes to complete.

It is hoped that this research will contribute to current understandings of carer's experiences in their relationships.

If you are interested in participating, please follow the below links to the online questionnaire:

(insert link)

Thanks and kind regards,

Elly Bailey

## Appendix H: Recruitment Flyer for Studies Two and Three



*Are you a Carer for someone with mental health difficulties?*

*Would you like to participate in a research study on Carer's Relationships and Coping Styles?*

We are looking for volunteers to take part in a study titled: *"Mental Health Carers' Relationship Experiences and Coping Strategies"*

As a participant in this study, you would be asked to: complete an online survey containing a series of measures that contain questions regarding your perception of the nature of your relationships and coping styles. Example questions include asking your agreement/disagreement with the following statements "One should not have bad thoughts about the person you are caring for" and "I am somewhat awkward and tense in close relationships."

This research will require you to reflect on your relationship problems and coping styles (ie avoidance, anxiety and hostility), which may be associated with distress & uncomfortable feelings. Benefits of this research include contributing to current understandings of carers' relationships and coping styles. This may have implications when designing interventions to assist carers to have more healthy and meaningful relationships.

The survey can be completed at a location of your choosing, and we anticipate it will take approximately 20 minutes to complete. To participate in this study, please access the survey using the following web address: <http://carers.questionpro.com>

For more information about this study please contact: Elly Bailey (PhD candidate) on 02 4221 5605 or [elb997@uowmail.edu.au](mailto:elb997@uowmail.edu.au)

**This study has been reviewed and approved by the Human Research Ethics Committee, University of Wollongong**

<http://carers.questionpro.com>

<http://carers.questionpro.com>

<http://carers.questionpro.com>

<http://carers.questionpro.com>

<http://carers.questionpro.com>

<http://carers.questionpro.com>

<http://carers.questionpro.com>

<http://carers.questionpro.com>

## Appendix I: Informed Consent for Studies Two and Three

Dear sir/madam,

Thank you for your interest in this study.

**TITLE:** The Relationship between Interpersonal Problems & Experiential Avoidance in Carer population

**PURPOSE OF THE RESEARCH:** This is an invitation to participate in a study conducted by researchers at the University of Wollongong. The purpose of the research is to investigate the relationship between experiential avoidance and interpersonal problems in those caring for a relative with mental illness.

**INVESTIGATORS:** Elly Bailey (PhD candidate); Dr. Trevor Crowe (Supervisor); Prof. Peter Caputi (Co-supervisor).

**RESEARCH PROCEDURES:** If you choose to participate, you will be invited to complete an online survey. The survey contains measures of experiential avoidance, interpersonal problems, and negative perceptions & expectations of interpersonal relationships. You will be asked to answer questions regarding your perception of the nature of your relationships and coping styles. We anticipate that the survey will take approximately 20-30 minutes to complete.

**BENEFITS OF THIS RESEARCH:** It is hoped that this research will contribute to current understandings of carer interpersonal problems & experiential avoidance. This may have implications when designing and implementing interventions for the carer population.

**POSSIBLE RISKS/ DISCOMFORT:** This research will require you to reflect on your relationship problems and coping styles (ie avoidance, anxiety and hostility), which may be associated with distress & uncomfortable feelings. If you do experience distress, you will be invited to contact the principal investigator, Trevor Crowe (tcrowe@uow.edu.au) for referral to appropriate support.

**PRIVACY AND CONFIDENTIALITY:** Your participation in this study is entirely confidential and your data will only be identified by a code created by you.

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way in which this research is being conducted, please contact the University of Wollongong Ethics Officer on (02) 4221 4457.

**PARTICIPATION AND CONSENT:** Your participation in this study is entirely voluntary. You are free to refuse to grant permission for participation in this study or, having consented, to withdraw your consent at any stage of the study. Refusing to participate or withdrawing consent will not affect your relationship the Human Research Ethics Committee (HREC) or the University of Wollongong.

*By checking the box below, you are acknowledging that you have read the above information and have had the opportunity to ask the researchers any further questions you may have via email to the primary investigator. You are also consenting to participating in the online survey as well as for your de-identified data to be published in an academic journal and used for a PhD thesis. You are also indicating that you are aware that you can contact the University of Wollongong Ethics Officer if you have any concerns or complaints regarding the way in which the research is conducted.*

**I consent to participate**

## **Appendix J: Code Generator for Studies Two and Three**

Please create a code consisting of the day and month of your birth (4 numbers) and ending with your mother's maiden initials (2 letters). For example: 0411EQ. This code will only be used in the instance that you wish to withdraw your data from the study at a later point.

Please store your code somewhere private. We will not be able to use this code to identify you personally.

## Appendix K: Inventory of Interpersonal Problems Permissions

For use by Elly Bailey only. Received from Mind Garden, Inc. on August 30, 2015



[www.mindgarden.com](http://www.mindgarden.com)

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her research:

Instrument: *Inventory of Interpersonal Problems*

Authors:

**Leonard M. Horowitz**

**Lynn E. Alden**

**Jerry S. Wiggins**

**Aaron L. Pincus**

Copyright: **Copyright © 2000 by Leonard M. Horowitz, Lynn E. Alden, Jerry S. Wiggins and Aaron L. Pincus. All rights reserved in all media. Published by Mind Garden, Inc. [www.mindgarden.com](http://www.mindgarden.com)**

Three sample items from a single form of this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most  
Mind Garden, Inc.  
[www.mindgarden.com](http://www.mindgarden.com)

Copyright © 2000 by Leonard M. Horowitz, Lynn E. Alden, Jerry S. Wiggins and Aaron L. Pincus.  
All rights reserved in all media. Published by Mind Garden, Inc. [www.mindgarden.com](http://www.mindgarden.com)



## Appendix L: Demographics

### What is your gender?

1. Male
2. Female

### What is your age?

1. 18-25
2. 26-50
3. 51-74
4. 75+

### What is your relationship to the person you are caring for?

*Note: If caring for more than one individual please select your primary carer role*

I am their...

1. Partner
2. Parent
3. Sibling
4. Child
5. Other relative
6. Friend
7. Other \_\_\_\_\_

### How long have you been caring for your loved one?

1. Less than 6 months
2. 6 months - 1 year
3. 1 year - 3 years
4. 3 years - 6 years
5. 6-10 years
6. 10 years +

### What is your loved ones mental health condition?

*Select all that apply*

1. Depression
2. Bipolar
3. Anxiety
4. PTSD
5. Borderline Personality Disorder
6. Other personality Disorder
7. Schizophrenia
8. Substance Use
9. Other \_\_\_\_\_

### Do you consider your loved one to be in recovery?

*Note: Psychological recovery refers to the development of new meaning and purpose in ones life as one grows beyond the catastrophic effects of mental illness*

1. Yes
2. No
3. Not sure

## Appendix M: Article based on Study 3



Contents lists available at ScienceDirect

Journal of Contextual Behavioral Science

journal homepage: [www.elsevier.com/locate/jcbs](http://www.elsevier.com/locate/jcbs)



Empirical research

### Do attachment anxiety and hostility mediate the relationship between experiential avoidance and interpersonal problems in mental health carers?

Elly Quinlan\*, Frank P. Deane, Trevor Crowe, Peter Caputi

*Illawarra Institute for Mental Health, School of Psychology, University of Wollongong, Building 22, Northfields Clinic, Northfields Avenue, Wollongong, 2500 New South Wales, Australia*

#### ARTICLE INFO

**Keywords:**  
Caregiving  
Mental health  
Interpersonal problems  
Experiential avoidance  
Mediation

#### ABSTRACT

Careers of people with mental illness frequently report interpersonal difficulties in their caring relationship, and experiential avoidance likely contributes to these problems. This study aimed to examine the relationship between experiential avoidance and eight interpersonal problem domains amongst lay mental health carers, and tested the mediating role of attachment anxiety and hostility. In addition, an alternative (reverse) mediation was tested in which experiential avoidance played the mediating role. A cross-sectional community-based sample of 145 mental health carers completed a questionnaire containing demographics and measures of interpersonal problems, experiential avoidance, attachment anxiety and hostility. Results indicated the relationship between experiential avoidance and interpersonal problems was fully mediated for the interpersonal problem domains of cold/distant and socially inhibited. Partial mediation was evident for the vindictive/self-centered, non-assertive, overly accommodating, self-sacrificing and intrusive/needy domains. No mediation occurred for the domineering/controlling domain. Alternative (reverse) model findings indicated partial/full mediation for the overly accommodating, domineering/controlling and vindictive/self-centered domains, and no mediation for the remaining five domains. Although tentative, findings suggest a mechanism for the relationship between experiential avoidance and particular domains of interpersonal problems that warrants further investigation. The importance of our data is highlighted by the burden and difficult relationships experienced by mental health carers, that requires targeted and effective psychological treatment.

#### 1. Introduction

Mental health carers are individuals “who provides ongoing personal care, support and assistance to any other individual who needs it because that individual has a mental illness” (Carers Recognition Act, 2010, p. 4). The worldwide reduction in institutionalized care has seen caring responsibilities frequently fall to informal carers, with these parents, spouses, siblings, adult children, other relatives and friends providing substantial care (Johnson, 2000). The last decade has seen an increased focus on the complex interpersonal patterns that exist between carers and care receivers (Lawn & McMahon, 2014; Nelis, Clare, & Whitaker, 2012; Ussher, Wong, & Perz, 2011; Wadham, Simpson, Rust, & Murray, 2016). Mental health carers frequently report interpersonal difficulties in relation to the person for whom they are caring (Acevedo Callejas & Thompson, 2017; Spector, Charlesworth, Orrell, & Marston, 2016; Yesufu-Udechuku et al., 2015).

Interpersonal problems are difficulties encountered when interacting, or attempting to interact, with others (Horowitz, Rosenberg, & Bartholomew, 1993). Work in the field of interpersonal problems is

often grounded in Interpersonal Theory which posits that a focus on interpersonal processes is needed to understand pathological behaviour (Horowitz et al., 2006; Leary, 2004; Sullivan, 1953). According to this theory, interpersonal processes exist along two principal dimensions: affiliation (ranging from cold behaviour to warm behaviour); and control (ranging from submissive behaviour to dominating behaviour) (Alden, Wiggins, & Pincus, 1990). The empirically established model of the interpersonal circumplex can represent these dispositions graphically (see Fig. 1). Control is represented as a vertical axis, affiliation as a horizontal axis, with interpersonal problems corresponding to combinations of these two dimensions (Alden et al., 1990; Horowitz et al., 2006). Eight domains of behaviour are defined, each describing a different interpersonal theme, namely: domineering/controlling, vindictive/self-centered, cold/distant, socially inhibited, non-assertive, overly accommodating, self-sacrificing and intrusive/needy.

The proportion of mental health carers experiencing interpersonal problems of significant difficulty has been found to be higher than that expected in the general population (17.7% vs 3–6%) (Quinlan, Deane, & Crowe, 2018a). Furthermore, mental health carers experience greater

\* Corresponding author.

E-mail address: [elq@uow.edu.au](mailto:elq@uow.edu.au) (E. Quinlan).

<https://doi.org/10.1016/j.jcbs.2018.01.003>

Received 10 September 2017; Received in revised form 8 January 2018; Accepted 31 January 2018  
2212-1447/ © 2018 Association for Contextual Behavioral Science. Published by Elsevier Inc. All rights reserved.



Fig. 1. The interpersonal circumplex.

rates of particular problem domains- with the Overly Accommodating and Self-Sacrificing domains the two highest (Quinlan et al., 2018a). There have been calls for more research on interpersonal problems in clinical and non-clinical groups, and more specifically the need to better understand associated cognitive processes (Gerhart, Baker, Hoerger, & Ronan, 2014). This call echoes a common criticism of work in the caregiving field; namely, a lack of data on underlying psychological processes (Devereux, Hastings, & Noone, 2009; Noone & Hastings, 2011).

Several theories of interpersonal problems point to the role of avoidance in contributing to, or perpetuating, dysfunction. Interpersonal theory posits that rigid attempts to avoid distress in social situations contribute to interpersonal problems (Holtforth, Bents, Mauler, & Grawe, 2006; pp. 486; Sullivan, 1953). Motivational approaches view interpersonal problems as a consequence of strong avoidance directed goals, which in turn lead to decreased satisfaction of a person's approach directed goals (Holtforth et al., 2006; pp. 486; Holtforth, 2008). Attachment theory describes a number of dysfunctional attachment styles that may contribute to interpersonal problems; one of which is the avoidant style (Inge, 1992). It has been suggested that "experiential avoidance may provide a broad umbrella for conceptualising the avoidant functions of problematic interpersonal behaviours" (Gerhart et al., 2014, p. 292).

Experiential avoidance has been defined as a person's tendency to be "unwilling to remain in contact with particular private experiences and take steps to alter the form or frequency of these events" (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996, p. 1154). Experiential avoidance is associated with negative outcomes, such as: depression and anxiety (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Kashdan et al., 2014), poor physical health (Lillis, Levin, & Hayes, 2011), maladaptive coping strategies (Chawla & Ostafin, 2007) and dysfunctional cognitions (Cristea, Montgomery, Szamoskozi, & David, 2013). Research within the broad carer field has indicated lay carers experience moderate to high levels of avoidance (Ulstein, Wyller, & Engedal, 2008), and these avoidance processes are associated with symptoms of anxiety (Cooper, Katona, Orrell, & Livingston, 2006), distress (Ulstein et al., 2008) and depression (Losada et al., 2015). Research specific to lay mental health carers has acknowledged the presence of avoidant behaviours (Kartalova-O'Doherty & Doherty, 2008; Mackay & Pakenham, 2012), however such studies have not included the broader experiential avoidance framework, which encompasses internal stimuli.

Experiential avoidance occurs when aversive internal experiences and the circumstances that trigger them are ignored or avoided (Hayes,

Strosahl, & Wilson, 2012). In the context of mental health caregiving, there are many interpersonal circumstances where such aversive internal experiences may be triggered. Common internal experiences for lay mental health carers may include painful thoughts and difficult emotions such as guilt, shame, stigmatisation and social isolation. External stressors that characterise the role may include the care-receiver's diagnosis, navigating the mental health system, managing the care-receiver's problematic and unpredictable behaviour, or dealing with changes in the nature of the relationship with the advent of mental illness. While experiential avoidance can benefit lay mental health carers in the short term by decreasing distress, it has potential to become problematic when utilised rigidly and without regard to situational appropriateness (Schmalz & Murrell, 2010).

To our knowledge, no published study has examined the relationship between interpersonal problems and experiential avoidance in mental health carers. However, this relationship has been studied in a non-clinical population, with a recent study proposing negative perceptions and expectations of relationships play a mediating role (Gerhart et al., 2014). Negative perceptions and expectations of relationships are strongly held beliefs about self and others that contribute to rigid and patterned interpersonal behaviour (Downey, Freitas, Michaelis, & Khouri, 1998). Gerhart et al. (2014) proposed that experiential avoidance holds temporal precedence in predicting negative perceptions and expectations in the form of attachment anxiety and hostility, and in turn, these perceptions are associated with interpersonal problems. Results of a cross-sectional survey indicated attachment anxiety mediated the relationship between experiential avoidance and interpersonal problems involving coldness and social avoidance, and hostility mediated the relationship between experiential avoidance and interpersonal problems involving dominance and vindictiveness (Gerhart et al., 2014).

Gerhart et al.'s mediation model (2014) fits with our understanding of the impact of experiential avoidance, attachment anxiety and hostility on relationships. Experiential avoidance is known to have a detrimental impact on cognitions regarding self and others (Cristea et al., 2013) and is associated with increased tension, conflict and inhibited intimacy in relationships (Reddy, Meis, Erbes, Polusny, & Compton, 2011). Attachment anxiety has been linked to increased conflict and reduced disclosure within relationships (Bradford, Feeney, & Campbell, 2002; Campbell, Simpson, Boldry, & Kashy, 2005), as well as reduced likelihood of support and reduced frequency of helping behaviour (Carnelley, Pietromonaco, & Jaffe, 1996). Hostility has a negative impact on relationships, through increased interpersonal rejection (Dodge & Coie, 1987; Karasawa, 2003) and maladaptive interpersonal cognitions (Scott, Ingram, & Shadel, 2003). Moreover, these processes have significance for the broader carer population. Studies show that carer attachment is associated with experiences of burden (Carpenter, 2001), anxiety (Cooper, Owens, Katona, & Livingston, 2008), psychological morbidity (Crispi, Schiaffino, & Berman, 1997), and psychological health (Nelis et al., 2012). Research on hostility in carers has primarily occurred in the framework of expressed emotion (a critical, hostile or controlling style of behaviour) and indicates high levels of criticism are common in carer family environments (Bailey & Grenyer, 2015); and expressed emotion is linked with higher burden and distress for carers (González-Blanch et al., 2010).

Gerhart et al.'s (2014) conceptual model of interpersonal problems has applicability to the mental health lay carer population. Caregiving for someone with mental illness is associated with difficult experiences (Losada et al., 2015), and high use of experiential avoidance as a means of coping (Chawla & Ostafin, 2007). According to Gerhart et al.'s (2014) model, the more a caregiver avoids thoughts, feelings and sensations related to the person they are caring for, the more anxious they become about the attachment (or alternatively, the more hostile they become). This attachment anxiety and/or hostility shapes the way the mental health carer behaves in their relationships, with rigid and excessive use of behaviour resulting in expression of the eight interpersonal problem



domains.

We aim to explore whether experiential avoidance explains negative perceptions and expectations of relationships that in turn contribute to common interpersonal problem domains in a mental health carer population. This study replicates and extends Gerhart et al. (2014) using a mental health carer sample; introducing an experiential avoidance measure specific to our study population; and considering all eight interpersonal domains in a mediation framework. Considering experiential avoidance has been posed as a mediator for various psychological processes associated with caregiver distress (Romero-Moreno, Losada, Márquez-González, & Mausbach, 2016; Spira et al., 2007), the possibility of an alternative (reverse) mediational model needs to be ruled out. Specifically, that the relationship between attachment anxiety or hostility and interpersonal problems is mediated by experiential avoidance. This mediation model suggests that the more mental health carers experience attachment anxiety and hostility, the more they begin to avoid thoughts, feelings and sensations associated with the care-receiver. This experiential avoidance limits use of flexible behaviour, resulting in stronger expression in the eight interpersonal problem domains. This model is more consistent with views that experiential avoidance might be best conceived as a process rather than an independent trait in the context of the relationship between experiential avoidance and attachment anxiety (Vaughan-Johnston, Quickert, & MacDonald, 2017).

## 2. Materials and methods

### 2.1. Design and procedure

This study had a cross-sectional survey design and was approved by the University's Human Research Ethics Committee. Recruitment took place during late 2015 to early 2017, and targeted Australian mental health lay carers. Data collection occurred through Australian-based mental health carer support agencies, who were contacted by email with a request to advertise the survey to their current clients. Advertisement took place in the form of email invitations, website posting and/or flyers displayed in the office of the relevant mental health carer agency. The study was presented as, 'researching mental health carers' relationships and coping styles'. Participants accessed the survey online via Questionpro.com and indicated consent by choosing to proceed through the Informed Consent page. Participants labelled each survey with a self-generated code, enabling datasets to be identified if carers chose to withdraw from the study.

### 2.2. Participants

One hundred and forty five participants provided informed consent and completed the study. Most participants (approximately 76%) were caring for a family member; consisting of parents (52%), siblings (7%) adult children (14%) and other relatives (3%). The remaining sample consisted of spouses (22%) and friends (2%). Most participants were women (88%) and aged over 50 years (60.5%). Just over half (55%) of participants were long term carers, having cared for the care receiver for over 10 years. Mental health carers identified their care-recipient as experiencing mood disorders (depression 36% and bipolar 40%), anxiety disorders (general anxiety 35% and post-traumatic stress disorder 25%), personality disorders (borderline personality disorder 32% and other 9%), schizophrenia (29%) and substance-induced disorders (12%). Note that multiple diagnoses were able to be endorsed. The percentage of participants that identified their care-receiver as in recovery was relatively evenly distributed, with 35% responding 'yes', 39% 'no' and 27% indicating they were not sure.

## 2.3. Measures

### 2.3.1. Interpersonal problems

The short version of the Inventory of Interpersonal Problems (IIP-32; Barkham, Hardy, & Startup, 1996; Horowitz, Rosenberg, Baer, Ureno, & Villaseñor, 1988) was utilised to measure interpersonal problems. The IIP-32 is a self-report instrument that identifies a person's most salient interpersonal difficulties. It contains 32 items that produce eight subscales; mapping onto domains of the Interpersonal Circumplex. Items are divided into two sections: behaviours that are 'hard for you to do' (e.g., 'It is hard for me to show affection to people') and behaviours that 'you do too much' (e.g., 'I try to control other people too much'). Ratings of the degree to which each problem is distressing are made on a 5-point scale, ranging from not at all (0) to extremely (4). Responses are summed and T-scores determined for each of the IIP-32 domains according to published scoring algorithms, with high scores indicating greater interpersonal distress (Horowitz, Alden, Wiggins, & Pincus, 2000). A T-score of 50 represents the mean, with scores above 60 indicating above average difficulty and scores above 70 indicating significant difficulty (Horowitz et al., 2000). The IIP has high internal and test-retest reliability and convergent and criterion validity (Alden et al., 1990; Barkham et al., 1996; Horowitz et al., 1988). In the current sample internal consistency was excellent,  $\alpha = .93$ .

### 2.3.2. Experiential avoidance

The Brief Experiential Avoidance Questionnaire (BEAQ) is a 15 item scale developed to assess experiential avoidance of painful emotions and uncomfortable situations (Gámez et al., 2014). It is based on the 62-item Multidimensional Experiential Avoidance Questionnaire (MEAQ), both of which tap into content from six dimensions: behavioural avoidance, distress aversion, procrastination, distraction and suppression, repression and denial, and distress endurance (Gámez et al., 2014; Gámez, Chmielewski, Kotov, Ruggero, & Watson, 2011). The BEAQ assesses experiential avoidance as a general process; with no time frame specified. Participants rate their agreement with items on a 1 (strongly disagree) to 6 (strongly agree) scale. Example items include 'the key to a good life is never feeling any pain' and 'I won't do something until I absolutely have to'. Responses are summed with higher values indicating more experiential avoidance. The BEAQ demonstrates good internal consistency and strong convergence with respect to each of the MEAQ's 6 dimensions (Gámez et al., 2014). In the current sample internal consistency was good,  $\alpha = .86$ .

### 2.3.3. Caregiving avoidance

The Experiential Avoidance in Caregiving Questionnaire (EACQ; Losada, Márquez-González, Romero-Moreno, & López, 2014) was used to measure experiential avoidance of emotions, thoughts and sensations regarding caregiving. The EACQ contains 15 items and is the first specific measure of experiential avoidance in the caregiving context. Participants rate how much each item applies to them on a scale of 1 (not at all) to 5 (a lot). Example items include 'One should not feel rejection or other unpleasant emotions about the person you are caring for' and 'It is normal for a caregiver to have negative thoughts about the person they are caring for' (reverse scored). Responses are summed with higher values associated with more experiential avoidance. The EACQ shows acceptable psychometric properties (Losada et al., 2014). In the current sample internal consistency was marginal,  $\alpha = .68$  but consistent with the internal consistency reported by Losada et al. ( $\alpha = .70$ ) (2014).

### 2.3.4. Attachment anxiety

The Relationship Awareness Scale (RAS; Snell, 1998) is a 30-item measure that evaluates three cognitive tendencies associated with relationships: relational consciousness, relational monitoring and relational anxiety. The present study utilised the Relational Anxiety subscale, which contains 9 items assessing tension, discomfort and

**Table 1**  
Descriptive statistics and correlations ( $N = 145$ ).

		Mean	SD	Range	2	3	4	5	6	7	8	9	10	11
1a	Experiential avoidance	45.4	13.8	18–84	.47**	.48**	.38**	.34**	.42**	.38**	.45**	.49**	.44**	.25**
1b	Caregiving avoidance	37.4	7.6	21–58	.34**	.43**	.28**	.35**	.36**	.42**	.38**	.27**	.21**	.46**
2	Attachment anxiety	20.6	11.1	9–45			.36**	.22**	.54**	.54**	.58**	.49**	.32**	.32**
3	Hostility/Interpersonal problems	15.0	6.1	8–36			.36**	.32**	.52**	.51**	.45**	.45**	.38**	.38**
4	Domineering/Controlling	52.0	9.9	41–90				.18*	.27**	.28**	.33**	.46**	.57**	.50**
5	Vindictive/Self-Centered	52.6	11.6	41–92					.61**	.24**	.23**	.23**	.16	.26**
6	Gold/Distant	54.0	11.3	42–89						.59**	.45**	.44**	.24**	.35**
7	Socially Inhibited	56.3	13.6	40–88							.57**	.56**	.38**	.31**
8	Non-assertive	57.5	12.6	38–83								.80**	.42**	.39**
9	Overly Accommodating	57.8	12.0	35–86									.57**	.50**
10	Self-Sacrificing	59.6	11.6	36–83										.47**
11	Intrusive/Needy	55.7	12.2	40–93										

Note.

\*  $p < .05$  (2 tailed).\*\*  $p < .01$  (2 tailed).

awkwardness in close relationships. Participants rate their agreement with items on a 1 (not at all characteristic of me) to 5 (very characteristic of me) scale. Example items include 'Intimate relationships make me feel nervous and anxious' and 'I am somewhat awkward and tense in close relationships.' Responses are summed with higher values indicating more attachment anxiety. The RAS relational anxiety subscale is associated with adequate internal reliability (Snell, 1998). In the current sample internal consistency was excellent,  $\alpha = .97$ .

### 2.3.5. Hostility

The Aggression-Questionnaire (AQ; Buss & Perry, 1992) is a 29 item measure that evaluates four dimensions of aggression: anger, verbal aggression, physical aggression, and hostility. The current study utilised the Hostility subscale, which contains 8 items assessing cognitive components of anger. Participants rate their agreement with items on a scale from 1 (not at all true) to 5 (completely true). Example items include 'At times I feel I have gotten a raw deal out of life' and 'When people are especially nice, I wonder what they want'. Responses are summed with higher values associated with more hostility. The AQ is associated with adequate reliability and validity (Bemstein & Gesn, 1997; Harris, 1997). In the current sample internal consistency was good,  $\alpha = .83$ .

### 2.3.6. Demographics

The following socio-demographic data were collected: age, gender, relationship to the care-receiver, duration of time in caregiving role, care-receivers' mental health condition, and whether they consider the care-receiver to be in recovery. These items were presented in the form of multiple choice questions, with predetermined categories.

### 2.4. Statistical analysis

Initially T-scores for each of the IIP-32 domains were determined according to published scoring algorithms (Horowitz et al., 2000). Descriptive analysis and Pearson's correlations of the scale factors were calculated.

A mediation model in which attachment anxiety and hostility were proposed as mediators of the relationship between experiential avoidance and interpersonal problem domains was tested. Testing for mediation required multiple paths to be tested. In our model, we tested the effects of experiential avoidance (the independent variable) on attachment anxiety and hostility (the mediators); the effect of attachment anxiety and hostility (the mediators) on the relevant interpersonal problem domain (the dependent variable), and the total effect of the experiential avoidance (the independent variable) on the relevant interpersonal problem domain (the dependent variable). Lastly, the indirect effect of experiential avoidance on each interpersonal problem

domain through attachment anxiety and hostility was calculated. According to Baron and Kenny (1986), if the association between the experiential avoidance and interpersonal problems is no longer significant after controlling for attachment anxiety and hostility, full mediation can be seen to be present; if the relationship diminishes but remains statistically significant, partial mediation can be seen to be present.

All eight interpersonal problem domains were modelled as independent variables, and thus eight mediation models were analysed. Mediation was performed using the PROCESS method for SPSS script developed by Hayes (2013), with 5000 bootstrap samples (Preacher & Hayes, 2008). We utilised the BEAQ as our measure of experiential avoidance due to its stronger psychometric properties, and included the following covariates in our analysis: gender, duration of caregiving relationship to care-receiver and recovery status of the care-receiver. Statistical significance was set at  $p < .05$  and a 95% CI was utilised for indirect effects. In order to test for robustness of results, all mediation models were repeated utilising our measure of caregiving avoidance (EACQ) in place of the BEAQ. To examine the alternative (reverse) model, we replicated our analysis but with experiential avoidance positioned as the mediator. In order to pose attachment anxiety and hostility as the independent variables, two separate models were computed for each interpersonal problem domain, thus sixteen alternative models were analysed.

### 3. Results

Descriptive statistics and Pearson correlations of the scales are reported in Table 1.

Experiential avoidance and caregiving avoidance were both significantly associated with the mediating variables, including attachment anxiety and hostility, and with the dependent variables of interpersonal problem domains. The interpersonal problem domains were all greater than the expected mean (i.e. 50), indicating our mental health lay carer sample experienced these problems to a greater degree than the general population. Each interpersonal problem domain displayed significant correlations with experiential avoidance, attachment anxiety and hostility.

Mediation results indicate that the independent variable, experiential avoidance, consistently predicts attachment anxiety and hostility (the mediators). Hostility was associated with the duration of caregiving, but not gender, relationship to care-receiver or recovery status. Attachment anxiety was not associated with any covariates. Associations between all variables and the eight interpersonal problem domains are illustrated in Figs. 2–9.

The relationship between experiential avoidance and interpersonal problems was fully mediated for the interpersonal problem domains of

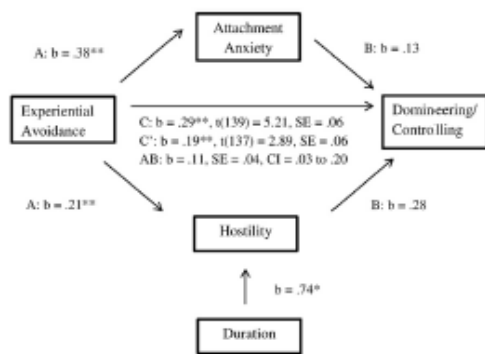


Fig. 2. Mediation of experiential avoidance and domineering/controlling interpersonal problems by attachment anxiety and hostility.

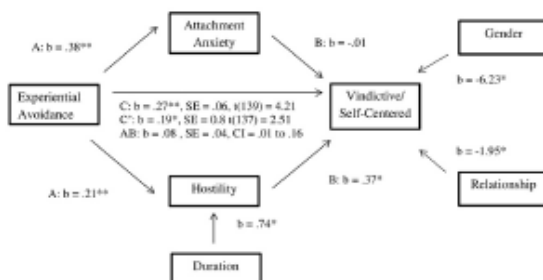


Fig. 3. Mediation of experiential avoidance and vindictive/self-centered interpersonal problems by attachment anxiety and hostility.

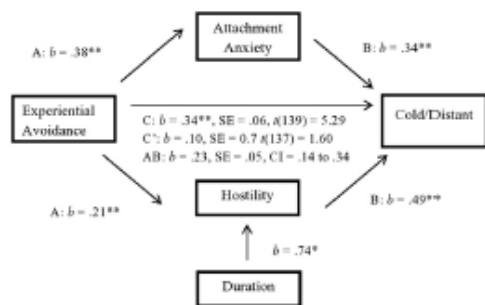


Fig. 4. Mediation of experiential avoidance and cold/distant interpersonal problems by attachment anxiety and hostility.

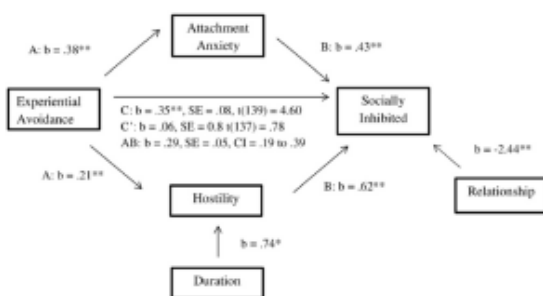


Fig. 5. Mediation of experiential avoidance and socially inhibited interpersonal problems by attachment anxiety and hostility.

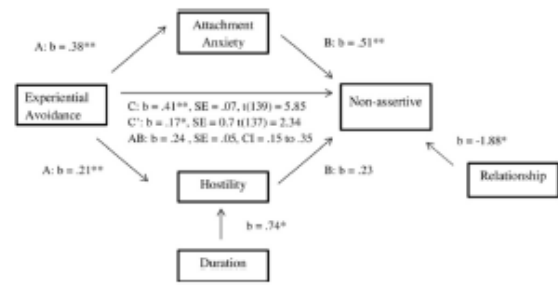


Fig. 6. Mediation of experiential avoidance and non-assertive interpersonal problems by attachment anxiety and hostility.

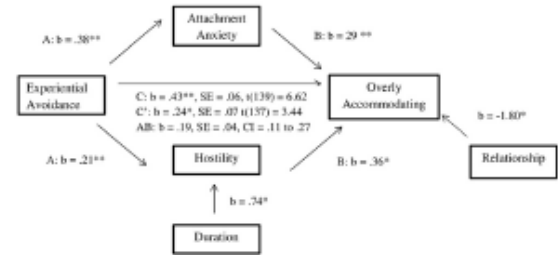


Fig. 7. Mediation of experiential avoidance and overly accommodating interpersonal problems by attachment anxiety and hostility.

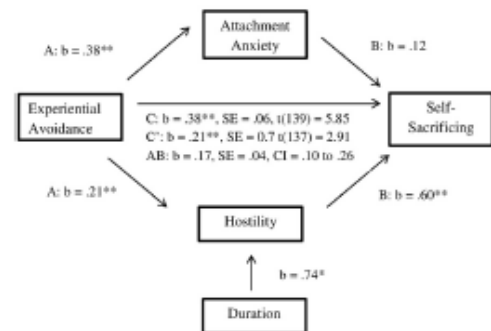


Fig. 8. Mediation of experiential avoidance and self-sacrificing interpersonal problems by attachment anxiety and hostility.

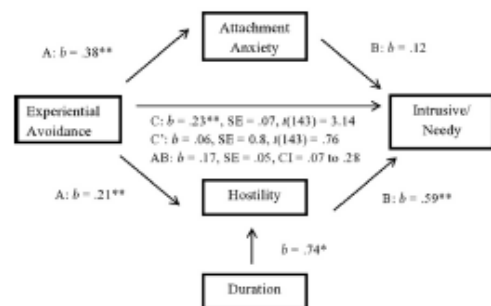


Fig. 9. Mediation of experiential avoidance and intrusive/needful interpersonal problems by attachment anxiety and hostility.



cold/distant and socially inhibited. For these domains, attachment anxiety and hostility simultaneously predicted interpersonal problems, with a stronger effect present for hostility. The overly accommodating domain was predicted by attachment anxiety and hostility to a similar degree, however, only partial mediation was present. These three domains (i.e., cold/distant, socially inhibited and overly accommodating) all displayed associations with the covariate relationship type.

Four other interpersonal problem domains were predicted by only one mediator. The vindictive/self-centered, self-sacrificing and intrusive/needy domains displayed partial mediation through hostility. Vindictive/self-centered interpersonal problems were associated with relationship type and gender, whilst self-sacrificing and intrusive/needy problems were not associated with any covariates. The non-assertive domain displayed partial mediation through attachment anxiety, and was associated with relationship type. The last interpersonal problem domain- domineering/controlling- displayed no mediation through attachment anxiety or hostility, nor any associations with covariates. All analyses were repeated with the measure of caregiving avoidance replacing experiential avoidance. The results of this indicated that all significant effects (i.e., full mediation and partial mediation) remained consistent.

We tested alternative (reverse) models for each interpersonal problem domain, in which experiential avoidance served as the mediator and attachment anxiety and hostility served as independent variables. The reverse model indicated mediation to be present for three of the eight interpersonal problem domains. The overly accommodating domain displayed partial mediation through hostility ( $C: b = .53^{**}$ ,  $C': b = .37^{**}$  for attachment anxiety;  $C: b = .89^{**}$ ,  $C': b = .55^{*}$  for hostility)- in contrast, our original analysis displayed partial mediation through hostility and attachment anxiety. The domineering/controlling domain displayed partial mediation through both attachment anxiety and hostility ( $C: b = .32^{**}$ ,  $C': b = .21^{*}$  for attachment anxiety;  $C: b = .57^{**}$ ,  $C': b = .36^{*}$  for hostility), in contrast, our original analysis indicated no mediation. The vindictive/self-centered domain displayed full mediation through attachment anxiety and partial mediation through hostility ( $C: b = .23^{*}$ ,  $C': b = .08$  for attachment anxiety;  $C: b = .62^{**}$ ,  $C': b = .40^{*}$  for hostility). Our original mediation analysis indicated partial mediation for hostility.

The reverse model indicated no mediation was present for the remaining five interpersonal problem domains. These include cold/distant ( $C: b = .55^{**}$ ,  $C': b = .44^{**}$  for attachment anxiety;  $C: b = .96^{**}$ ,  $C': b = .76^{**}$  for hostility), socially inhibited ( $C: b = .66^{**}$ ,  $C': b = .57^{**}$  for attachment anxiety;  $C: b = 1.14^{**}$ ,  $C': b = .95^{**}$  for hostility), non-assertive ( $C: b = .92^{**}$ ,  $C': b = .62^{**}$  for attachment anxiety;  $C: b = .67^{**}$ ,  $C': b = .55^{**}$  for hostility), self-sacrificing ( $C: b = .43^{**}$ ,  $C': b = .28^{**}$  for attachment anxiety;  $C: b = .95^{**}$ ,  $C': b = .71^{**}$  for hostility) and intrusive/needy ( $C: b = .35^{**}$ ,  $C': b = .28^{**}$  for attachment anxiety;  $C: b = .75^{**}$ ,  $C': b = .67^{**}$  for hostility). In contrast, the original mediation analysis described above indicated these domains were all partially or fully mediated.

#### 4. Discussion

We tested two mediation models examining potential mediating relationships between experiential avoidance, attachment anxiety, hostility and interpersonal problems. In testing the original model that aimed to replicate and extend findings of Gerhart et al. (2014) it was found that for seven of eight interpersonal problem domains attachment anxiety and hostility partially or fully mediated the relationship between experiential avoidance and interpersonal problems. The results revealed that experiential avoidance consistently predict negative expectations and perceptions of others in the form of attachment anxiety and hostility, consistent with our understanding of the impact of experiential avoidance on cognitions and relationships (Cristea et al., 2013; Reddy et al., 2011). This suggests that for the mental health lay carer population, experiential avoidance is strongly linked to their view

of self and others (Ross, Hinshaw, & Murdock, 2016). Mental health carers' experience of attachment anxiety was not associated with the demographics of gender, relationship type, duration of caregiving or care-receiver recovery status. Hostility was associated with duration of caregiving, suggesting that the way mental health carers perceive others changes according to how long they have been in the role. Further investigation is required to determine the direction of this relationship, the significance of this highlighted by the high rates (49.2%) of Australian mental health carers who have been in their role for greater than ten years (Australian Bureau of Statistics, 2012).

Findings indicate that attachment anxiety and hostility fully mediate the relationship between experiential avoidance and interpersonal problem domains of cold/distant and socially inhibited, with hostility holding a slightly larger effect. Such mental health carers would experience simultaneous feelings of anxiety, discomfort, resentment and suspicion in their relationships (Buss & Perry, 1992; Snell, 1998). Consequently, the carer may be more likely to interpret the care-receiver's actions through a lens of worry and suspicion, in turn responding by emotionally withdrawing and giving up their agency in the situation (resulting in cold and submissive interpersonal behaviours). This finding is partially consistent with Gerhart et al. (2014), whom implicated attachment anxiety but not hostility as a mediator for interpersonal problems involving coldness and social avoidance. The cold/distant domain and socially inhibited domain are adjacent on the interpersonal circumplex. The cold/distant domain- reflects difficulties in displaying affection, closeness and getting along with others, and the socially inhibited domain- reflects difficulties in socializing with others and reaching for social connection. The shared features of these domains are low affiliation (a tendency to engage in cold behaviours) and medium/low control (a tendency to engage in submissive behaviours), suggesting that in the mental health carer population, hostility may be tied to low affiliation and attachment anxiety tied to submissive behaviour.

Attachment anxiety partially mediated the relationship between experiential avoidance and interpersonal problem domains of overly accommodating and non-assertive. Mental health carers with perceptions and expectations that are characterised by attachment anxiety, would experience strong feelings of anxiety and discomfort in relationships, leading to concerns about their worthiness for the love and support of others (Snell, 1998). Consequently, they may relate to others using self-protective behaviours that present as overly-accommodating and/or non-assertive. These domains have not been previously studied in the context of our mediation model and thus represent a novel finding. The overly-accommodating domain reflects difficulties in saying no, expressing anger and asserting oneself, whereas the non-assertive domain reflects difficulties in expressing one's needs, confronting others and being firm. These domains are adjacent on the interpersonal circumplex, with a shared feature of low control (i.e., a tendency to engage in submissive behaviours), once again implicating the role of attachment anxiety in mental health carers' submissive behaviours.

Hostility partially mediated the relationship between experiential avoidance and interpersonal problems of intrusive/needy, self-sacrificing, overly accommodating and vindictive/self-centered. Mental health carers with hostile perceptions and expectations, would experience strong feelings of suspicion, resentment and sensitivity to mistreatment (Buss & Perry, 1992), which may be projected onto their interpretations of the care-receiver's behaviour. The carer may compensate for this through excessive warmth, leading to a pattern of excessively self-sacrificing or overly accommodating behaviour in an effort to offset these concerns, or may emotionally withdraw and utilise vindictive/self-centered behaviours. The intrusive/needy domain reflects difficulties in keeping things private, excessive opening up to others and a need for attention; the self-sacrificing domain reflects a tendency to be overly generous, people pleasing and putting others needs first; the vindictive/self-centered domain reflects difficulty

putting others' needs first, being supportive of others, and experiencing care for others. The first three of these domains are adjacent on the interpersonal circumplex, with a shared feature of high affiliation (i.e., a tendency to engage in warm behaviour towards others). The exception to this is vindictive/self-centered, which is placed opposite to overly accommodating, and reflects low affiliation.

The finding that hostility predicts warm interpersonal behaviour in mental health carers is at first glance counter-intuitive and inconsistent with Gerhart et al.'s (2014) suggestion that hostility is tied to aggressive behaviour. However, the unique context of informal mental health caregiving may provide insight into this finding. It is common for mental health lay carers to experience aggression in their caring relationship (Varghese, Khakha, & Chadda, 2016), including verbal abuse, destructive behaviour, hitting or punching, harm to self or threats of suicide (Quinlan, Deane, & Crowe, 2018b; Reinares et al., 2006; Swan & Lavitt, 1988). Responding with dominating, controlling and/or cold behaviour may put the mental health carer in danger of further escalation and retaliation. Highlighting the importance of safety, studies indicate mental health carers' preferred strategies for responding to hostility include communicating love, affection and gentleness, careful listening and diverting attention away from the situation (Swan & Lavitt, 1988; Varghese et al., 2016). The provision of such warmth and comfort in the face of hostility may inadvertently reinforce the care-receivers aggression, creating a dysfunctional interpersonal pattern as both parties attempt to get their needs met.

Our findings indicate the relationship between experiential avoidance and the interpersonal problem of domineering/controlling was not mediated by attachment anxiety or hostility. The domineering/controlling domain reflects high agency and control, aggression towards others and manipulative tendencies. The interpersonal principal of complementarity suggests that individuals behave in ways that evoke reciprocal behaviour from others (Carson, 1969; Kiesler, 1983). Thus, it is possible that mental health carer's use of domineering/controlling behaviours evokes desired submissive behaviours from the care-receiver, leading to a self-sustaining and reinforcing system. As domineering/controlling individuals are described as "unable to consider another person's perspective" (Horowitz et al., 2000, p.38), the impact of negative perceptions and expectations of relationships on this system may be lessened due to the relational focus being on self rather than other.

The relationship between the mental health carer and care-receiver (i.e., parent, sibling, child, other relative, spouse or friend) was a significant co-variate in five of the eight interpersonal domains studied. This is consistent with a large body of prior work indicating parents, spouses, adult children and non-relatives experience and cope with caregiving differently (Hammond, Weinberg, & Cummins, 2014; Kim, Chang, Rose, & Kim, 2012; Lawn & McMahon, 2014). The five domains in question included vindictive/self-centered, cold/distant, socially inhibited, non-assertive and overly accommodating- all of which are adjacent on the interpersonal circumplex. The shared features of these domains include low to medium control and low to medium affiliation, suggesting relationship type has the greatest impact on interpersonal problems involving submission and coldness. Further research is needed to clarify the direction of these relationships.

The study findings have treatment implications when considering how to best support mental health carers' interpersonal problems. For carers experiencing interpersonal problems characterised by cold/distant and socially inhibited behaviours, our findings suggest that attachment anxiety and hostility should be included as targets of treatment rather than experiential avoidance alone. For example, this could be achieved through attachment therapy focused on facilitating expression (Seedall & Wampler, 2016) and/or cognitive control training for hostility (Wilkowski, Crowe, & Ferguson, 2015). For all other interpersonal problem domains, it appears that a more direct intervention to address experiential avoidance may be warranted, such as Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999). As

mental health carer's experience of experiential avoidance, attachment anxiety and hostility occur within the relational context of caregiving, couple or family therapy with the care-receiver could prove powerful in bringing these perceptions and expectations to light.

Overall, results of this study implicate attachment anxiety and hostility as having a mediating role between experiential avoidance and interpersonal problems for seven of eight domains studied. These relationships were apparent for both experiential avoidance as a general process and caregiving specific avoidance, lending robustness to the model. However, the cross-sectional nature of our study does not allow for an understanding of causal relationships between the studied variables, opening up the possibility of other potential models. Our findings regarding an alternative (reverse) mediational model indicated experiential avoidance mediated the relationship between attachment anxiety or hostility and interpersonal problems for three of the eight domains. Partial/full mediation was indicated for the overly accommodating, domineering/controlling and vindictive/self-centered domains, suggesting there may be alternative mechanisms by which experiential avoidance relates to these interpersonal problems. In addition, these results raise the possibility of reciprocal relationships. For example, the overly accommodating domain displayed partial mediation on both the original and reverse mediation models. Thus, it is possible that higher levels of experiential avoidance contribute to higher attachment anxiety and hostility and this in turn contributes to greater experiential avoidance. These reciprocal processes may ultimately lead to more interpersonal problems in the overly accommodating domain. However, at this point such reciprocal relationships are speculative and there is a need for longitudinal study designs to test these hypotheses.

Our study has several limitations that should be noted. The sample was relatively small and cannot be seen to represent all mental health lay carers, with a high proportion of female respondents (88%). These concerns are somewhat offset by the commonality of such gender distribution in carer research (e.g., 84% female: Broady & Stone, 2015; and 85% female: Hussain, Wark, Dillon, & Ryan, 2016) and the conversion of IIP-32 scores by gender norms (Horowitz et al., 2000). The cross-sectional design provides only a snapshot of mental health carers' experiences rather than an understanding of how experiential avoidance, interpersonal problems, attachment anxiety and hostility develop over time. Future research could include a longitudinal focus, to track mental health carer's experiential avoidance, attachment anxiety, hostility and interpersonal problems at various points in the caring journey. In addition, considering carers and care-receivers experience disparity in how they view their relationship (Manne et al., 2006), future research should involve both parties as active research participants. This could be achieved through joint interviews, dyadic diary studies and/or behavioural observation of relationship functioning, to explore how experiential avoidance, attachment anxiety, hostility and interpersonal problems unfold in real time. In light of the impact of relationship type on interpersonal problem domains, such studies should capture and compare the experiences of parents, spouses and other mental health carers.

#### Acknowledgements

We wish to thank all participants who contributed to this study, and two anonymous reviewers who provided valuable input on an earlier version of this manuscript.

#### Declaration of interest

This research has been conducted with the support of the Australian Government Research Training Program Scholarship.



## Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## References

- Acevedo Callejas, M. L., & Thompson, C. M. (2017). Stress, frequency of challenges, and coping for partners of individuals with mental health conditions. *Health Communication, 32*(7), 880–889. <http://dx.doi.org/10.1080/10410236.2016.1196408>.
- Alden, L., Wiggins, J., & Pincus, A. (1990). Construction of circumplex scales for the Inventory of Interpersonal Problems. *Journal of Personality Assessment, 55*(3–4), 521–536. <http://dx.doi.org/10.1037/a0015327>.
- Australian Bureau of Statistics (2012). *Survey of Disability, Ageing and Carers* (Cat. No. 4430.0). Belconnen, Australia.
- Bailey, R. C., & Grenyer, R. F. S. (2015). The relationship between expressed emotion and wellbeing for families and carers of a relative with borderline personality disorder. *Personality and Mental Health, 9*(1), 21–32. <http://dx.doi.org/10.1002/pmh.1273>.
- Barham, M., Hardy, G. E., & Startup, M. (1996). The IIP-32: A short version of the Inventory of Interpersonal Problems. *British Journal of Clinical Psychology, 35*(1), 21–35. <http://dx.doi.org/10.1111/j.2044-8260.1996.tb01159.x>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182. <http://dx.doi.org/10.1037/0022-3514.51.6.1173>.
- Bernstein, I. H., & Gess, P. R. (1997). On the dimensionality of the Buss/Perry aggression questionnaire. *Behavior Research and Therapy, 35*(6), 563–568. [http://dx.doi.org/10.1016/s0005-7967\(97\)00014-4](http://dx.doi.org/10.1016/s0005-7967(97)00014-4).
- Bradford, S. A., Feeney, J. A., & Campbell, L. (2002). Links between attachment orientations and dispositional and diary-based measures of disclosure in dating couples: A study of actor and partner effects. *Personal Relationships, 9*(4), 491–506. <http://dx.doi.org/10.1111/1475-6811.00031>.
- Broadly, T. R., & Stone, K. (2015). “How can I take a break?” Coping strategies and support needs of mental health carers. *Social Work in Mental Health, 13*(4), 318–335.
- Buss, D. M., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality & Social Psychology, 63*(3), 452. <http://dx.doi.org/10.1037/0022-3514.63.3.452>.
- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology, 88*(3), 510–531. <http://dx.doi.org/10.1037/0022-3514.88.3.510>.
- Carers Recognition Act NSW (2010). Available from <https://www.legislation.nsw.gov.au/#/view/act/2010/20/whole>.
- Carnegie, K. B., Pietromonaco, P. R., & Jaffe, K. (1996). Attachment, caregiving, and relationship functioning in couples: Effects of self and partner. *Personal Relationships, 3*(3), 257–278. <http://dx.doi.org/10.1111/j.1475-6811.1996.tb00116.x>.
- Garner, B. D. (2001). Attachment bonds between adult daughters and their older mothers: Associations with contemporary caregiving. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 56B*(5), 257–266. <http://dx.doi.org/10.1093/geronb/56.5.P257>.
- Garson, R. C. (1969). *Interaction concepts of personality*. Chicago: Aldine.
- Chawla, N., & Otafian, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology, 63*(9), 871–890. <http://dx.doi.org/10.1002/jclp.20400>.
- Cooper, C., Katona, C., Orrell, M., & Livingston, G. (2006). Research report: Coping strategies and anxiety in caregivers of people with Alzheimer’s disease: The LASER-AD study. *Journal of Affective Disorders, 90*, 15–20. <http://dx.doi.org/10.1016/j.jad.2005.08.017>.
- Cooper, C., Owens, C., Katona, C., & Livingston, G. (2008). Attachment style and anxiety in carers of people with Alzheimer’s disease: Results from the LASER-AD study. *International Psychogeriatrics, 20*(3), 494–507. <http://dx.doi.org/10.1017/S104161020700645X>.
- Grispi, E. L., Schiaffino, K., & Berman, W. H. (1997). The contribution of attachment to burden in adult children of institutionalized parents with dementia. *Gerontologist, 37*(1), 52–60. <http://dx.doi.org/10.1093/geront/37.1.52>.
- Ortisa, I. A., Montgomery, G. H., Szamoskózi, S., & David, D. (2013). Key constructs in “Classical” and “New Wave” cognitive behavioral psychotherapies: Relationships among each other and with emotional distress. *Journal of Clinical Psychology, 69*(6), 584–599. <http://dx.doi.org/10.1002/jclp.21976>.
- Devereux, J., Hastings, R., & Noone, S. (2009). Staff stress and burnout in intellectual disability services: Work stress theory and its application. *Journal of Applied Research in Intellectual Disabilities, 22*(6), 561–573. <http://dx.doi.org/10.1111/j.1468-3148.2009.00509.x>.
- Dodge, K. A., & Coie, J. D. (1987). Social-information-processing factors in reactive and proactive aggression in children’s peer groups. *Journal of Personality & Social Psychology, 53*(6), 1146–1158. <http://dx.doi.org/10.1037/0022-3514.53.6.1146>.
- Downey, G., Freitas, A. L., Michadis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology, 75*(2), 545–560. <http://dx.doi.org/10.1037/0022-3514.75.2.545>.
- Gómez, W., Chmielewski, M., Kotov, R., Ruggero, C., Suzuki, N., & Watson, D. (2014). The brief experiential avoidance questionnaire: Development and initial validation. *Psychological Assessment, 26*(1), 35–45. <http://dx.doi.org/10.1037/a0034473>.
- Gómez, W., Chmielewski, M., Kotov, R., Ruggero, C., & Watson, D. (2011). Development of a measure of experiential avoidance: The multidimensional experiential avoidance questionnaire. *Psychological Assessment, 23*(3), 692–713. <http://dx.doi.org/10.1037/a0023242>.
- Gerhart, J. L., Baker, C. N., Hoerger, M., & Ronan, G. F. (2014). Experiential avoidance and interpersonal problems: A moderated mediation model. *Journal of Contextual Behavioral Science, 3*(4), 291–298. <http://dx.doi.org/10.1016/j.jchs.2014.08.003>.
- González-Blanch, C., Martín-Muñoz, V., Pardo-García, G., Martínez-García, O., Álvarez-Jiménez, M., Rodríguez-Sánchez, J. M., & Crespo-Pacorro, B. (2010). Effects of family psychoeducation on expressed emotion and burden of care in first-episode psychosis: A prospective observational study. *Spanish Journal of Psychology, 13*(1), 389–395. <http://dx.doi.org/10.1017/S1138741600003942>.
- Hammond, T., Weinberg, M. K., & Cummins, R. A. (2014). The dyadic interaction of relationships and disability type on informal carer subjective well-being. *Quality of Life Research, 23*, 1535–1542. <http://dx.doi.org/10.1007/s11136-013-0064-8>.
- Harris, J. A. (1997). A further evaluation of the aggression questionnaire: Issues of validity and reliability. *Behaviour Research and Therapy, 35*(11), 1047–1053. [http://dx.doi.org/10.1016/S0005-7967\(97\)00064-8](http://dx.doi.org/10.1016/S0005-7967(97)00064-8).
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* / Andrew F. Hayes. New York: Guilford Press.
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masada, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1–25. <http://dx.doi.org/10.1016/j.brat.2005.06.006>.
- Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change* / Steven C. Hayes, Kirk D. Strosahl, Kelly G. Wilson. New York, London: Guilford Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change* (2 ed.). New York: The Guilford Press.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*(6), 1152–1168. <http://dx.doi.org/10.1037/0022-006X.64.6.1152>.
- Holforth, M. G. (2008). Avoidance motivation in psychological problems and psychotherapy. *Psychotherapy Research, 18*(2), 147–159. <http://dx.doi.org/10.1080/10503300701765849>.
- Holforth, M. G., Benz, H., Mauler, B., & Grawe, K. (2006). Interpersonal distress as a mediator between avoidance goals and goal satisfaction in psychotherapy inpatients. *Clinical Psychology & Psychotherapy, 13*(3), 172–182. <http://dx.doi.org/10.1002/c.1002>.
- Horowitz, L., Alden, L., Wiggins, J., & Pincus, A. (2000). *IIP: Inventory of interpersonal problems manual*. San Antonio, TX: The Psychological Corporation.
- Horowitz, L., Rosenberg, S., Baer, B., Ureno, G., & Villasonor, V. (1988). Inventory of interpersonal problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology, 56*(6), 885–892. <http://dx.doi.org/10.1037/0022-006X.56.6.885>.
- Horowitz, L., Rosenberg, S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy. *Journal of Consulting and Clinical Psychology, 61*(4), 549–560. <http://dx.doi.org/10.1037/0022-006X.61.4.549>.
- Horowitz, L., Wilson, K., Turan, B., Zolotsev, P., Constantino, M., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model. *Personality & Social Psychology Review, 10*(1), 67–86. [http://dx.doi.org/10.1207/s15327957pspr1001\\_4](http://dx.doi.org/10.1207/s15327957pspr1001_4).
- Hussain, R., Wark, S., Dillon, G., & Ryan, P. (2016). ‘Self-reported physical and mental health of Australian carers: A cross-sectional study’. *BMJ Open, 6*(9), 1–10.
- Inge, B. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology, 28*(5), 759. <http://dx.doi.org/10.1037/0012-1649.28.5.759>.
- Johnson, E. D. (2000). Differences among families coping with serious mental illness: A qualitative analysis. *American Journal of Orthopsychiatry, 70*(1), 126–134. <http://dx.doi.org/10.1037/h0087664>.
- Karasawa, K. (2003). Interpersonal reactions toward depression and anger. *Cognition and Emotion, 17*(1), 123–138. <http://dx.doi.org/10.1080/02699930320002774>.
- Kartalova-Oboderty, Y., & Doherty, D. T. (2008). Coping strategies and styles of family carers of persons with enduring mental illness: A mixed methods analysis. *Scandinavian Journal of Caring Sciences, 22*(1), 19–28. <http://dx.doi.org/10.1111/j.1471-6712.2007.00583.x>.
- Kashdan, T. B., Goodman, F. R., Machel, K. A., Kleiman, E. M., Monfort, S. S., Garrochi, J., & Nealek, J. B. (2014). A contextual approach to experiential avoidance and social anxiety: Evidence from an experimental interaction and daily interactions of people with social anxiety disorder. *Emotion, 14*(4), 769–781. <http://dx.doi.org/10.1037/a0035935>.
- Kiesler, D. J. (1983). The 1982 interpersonal circle: A taxonomy for complementarity in human transactions. *Psychological Review, 90*, 185–214. <http://dx.doi.org/10.1037/0033-295X.90.3.185>.
- Kim, H., Chang, M. D., Rose, K., & Kim, S. (2012). Predictors of caregiver burden in caregivers of individuals with dementia. *Journal of Advanced Nursing, 68*(4), 846–855. <http://dx.doi.org/10.1111/j.1365-2648.2011.05787.x>.
- Lawn, S., & McMahon, J. (2014). The importance of relationship in understanding the experiences of spouse mental health carers. *Qualitative Health Research, 24*(2), 254–266. <http://dx.doi.org/10.1177/1049732313520078>.
- Leary, T. (2004). *Interpersonal diagnosis of personality: A functional theory and methodology for personality evaluation*. Wiley & Stock Publishers.
- Lillis, J., Levin, M. E., & Hayes, S. C. (2011). Exploiting the relationship between body mass index and health-related quality of life: A pilot study of the impact of weight self-stigma and experiential avoidance. *Journal of Health Psychology, 16*(5), 722–727. <http://dx.doi.org/10.1177/1359105310388321>.
- Losada, A., Márquez-González, M., Romero-Moreno, R., & López, J. (2014). Development

- and validation of the Experiential Avoidance in Caregiving Questionnaire (EACQ). *Aging & Mental Health*, 18(7), 897–904. <http://dx.doi.org/10.1080/13607863.2014.896868>.
- Losada, A., Márquez-González, M., Romero-Moreno, R., López, J., Fernández-Fernández, V., & Nogales-González, C. (2015). Cognitive behavioral therapy (CBT) versus acceptance and commitment therapy (ACT) for dementia family caregivers: Follow-up results of a randomized clinical trial. *European Geriatric Medicine*, 5, 546. [http://dx.doi.org/10.1016/S1878-7649\(14\)70088-9](http://dx.doi.org/10.1016/S1878-7649(14)70088-9).
- Mackay, C., & Pakenham, K. (2012). A stress and coping model of adjustment to caring for an adult with mental illness. *Community Mental Health Journal*, 48(4), 450–462. <http://dx.doi.org/10.1007/s10597-011-9435-4>.
- Manne, S. L., Ostroff, J. S., Norton, T. R., Fox, K., Goldstein, L., & Grana, G. (2006). Cancer-related relationship communication in couples coping with early stage breast cancer. *Psycho-Oncology*, 15(3), 234–247. <http://dx.doi.org/10.1002/po.n.941>.
- Nelis, S. M., Clare, L., & Whitaker, C. J. (2012). Attachment representations in people with dementia and their carers: Implications for well-being within the dyad. *Aging & Mental Health*, 16(7), 845–854. <http://dx.doi.org/10.1080/13607863.2012.667779>.
- Noone, S. J., & Hastings, R. P. (2011). Values and psychological acceptance as correlates of burnout in support staff working with adults with intellectual disabilities. *Journal of Mental Health Research in Intellectual Disabilities*, 4(2), 79. <http://dx.doi.org/10.1080/19315864.2011.582230>.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <http://dx.doi.org/10.3758/BRM.40.3.879>.
- Quinlan, E., Deane, F., Crowe, T. (2018a). *Profiles of Interpersonal Problems in Mental Health Care*. Manuscript submitted for publication.
- Quinlan, E., Deane, F., Crowe, T. (2018b). *Interpersonal Problems amongst Mental Health Carers: A qualitative study*. Manuscript submitted for publication.
- Reddy, M. K., Meis, L. A., Erbes, C. R., Polusny, M. A., & Gompston, J. S. (2011). Associations among experiential avoidance, couple adjustment, and interpersonal aggression in returning Iraqi war veterans and their partners. *Journal of Consulting and Clinical Psychology*, 79(4), 515–520. <http://dx.doi.org/10.1037/a0023929>.
- Reinares, M., Vieta, E., Golon, F., Martínez-Arán, A., Torrent, C., Comes, M., & Sánchez-Moreno, J. (2006). What really matters to bipolar patients' caregivers: Sources of family burden. *Journal of Affective Disorders*, 94, 157–163. <http://dx.doi.org/10.1016/j.jad.2006.04.022>.
- Romero-Moreno, R., Losada, A., Márquez-González, M., & Mausbach, B. T. (2016). Stressors and anxiety in dementia caregiving: Multiple mediation analysis of rumination, experiential avoidance, and leisure. *International Psychogeriatrics*, 28(11), 1835–1844. <http://dx.doi.org/10.1017/S1041610216001009>.
- Rees, A. S., Hirschaw, A. B., & Murdock, N. L. (2016). Integrating the relational matrix: Attachment style, differentiation of self, triangulation, and experiential avoidance. *Contemporary Family Therapy*, 38(4), 400–411. <http://dx.doi.org/10.1007/s10591-016-9395-5>.
- Schmalz, J. E., & Murrell, A. R. (2010). Measuring experiential avoidance in adults: The avoidance and fusion questionnaire. *International Journal of Behavioral Consultation and Therapy*, 6(3), 198–213. <http://dx.doi.org/10.1037/h0100908>.
- Scott, W. D., Ingram, R. E., & Shadel, W. G. (2003). Hostile and sad moods in dysphoria: Evidence for cognitive specificity in attributions. *Journal of Social and Clinical Psychology*, 22(3), 233–252. <http://dx.doi.org/10.1521/jscp.2003.22.3.233>.
- Seedall, R. B., & Wampler, K. S. (2016). Couple emotional experience: Effects of attachment anxiety in low and high structure couple interactions. *Journal of Family Therapy*, 38(3), 340–363. <http://dx.doi.org/10.1111/1467-6427.12113>.
- Snell, W. E. (1998). The relationship awareness scale: Measuring relational-consciousness, relational-monitoring, and relational-anxiety. *Contemporary Social Psychology*, 18, 23–49.
- Spector, A., Charlesworth, G., Orrell, M., & Marston, I. (2016). Factors influencing the person-carer relationship in people with anxiety and dementia. *Aging and Mental Health*, 20(10), 1055–1062. <http://dx.doi.org/10.1080/13607863.2015.1063104>.
- Spira, A. P., Beaudreau, S. A., Jimenez, D., Resold, K., Cusing, M. M., Gray, H. L., & Gallagher-Thompson, D. (2007). Experiential avoidance, acceptance, and depression in dementia family caregivers. *Clinical Gerontology*, 30(4), 55–64.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Swan, R. W., & Lavitt, M. (1988). Patterns of adjustment to violence in families of the mentally ill. *Journal of Interpersonal Violence*, 3(1), 42–54. <http://dx.doi.org/10.1177/08862608880301004>.
- Ultein, I., Wyller, T. B., & Engedal, K. (2008). Correlates of intrusion and avoidance as stress response symptoms in family carers of patients suffering from dementia. *International Journal of Geriatric Psychiatry*, 23(10), 1051–1057. <http://dx.doi.org/10.1002/gps.2032>.
- Usher, J. M., Wong, W. K. T., & Perz, J. (2011). A qualitative analysis of changes in relationship dynamics and roles between people with cancer and their primary informal carer. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*, 15(6), 650–667. <http://dx.doi.org/10.1177/1363459310367440>.
- Varghese, A., Khalkha, D. C., & Chadda, R. K. (2016). Pattern and type of aggressive behavior in patients with severe mental illness as perceived by the caregivers and the coping strategies used by them in a tertiary care hospital. *Archives of Psychiatric Nursing*, 30, 62–69. <http://dx.doi.org/10.1016/j.apn.2015.10.002>.
- Vaughan-Johnston, T. L., Quicker, R. E., & MacDonald, T. K. (2017). Psychological flexibility under fire: Testing the incremental validity of experiential avoidance. *Personality and Individual Differences*, 105, 335–349. <http://dx.doi.org/10.1016/j.paid.2016.10.011>.
- Wadham, O., Simpson, J., Rust, J., & Murray, C. (2016). Couples' shared experiences of dementia: A meta-synthesis of the impact upon relationships and couplehood. *Aging and Mental Health*, 20(5), 463–473. <http://dx.doi.org/10.1080/13607863.2015.1023769>.
- Wilkowski, B. M., Crowe, S. E., & Ferguson, E. L. (2015). Learning to keep your cool: Reducing aggression through the experimental modification of cognitive control. *Cognition and Emotion*, 29(2), 251–265. <http://dx.doi.org/10.1080/02699931.2014.911146>.
- Yesufo-Udechuku, A., Harrison, B., Mayo-Wilson, E., Young, N., Woodhams, P., Shiers, D., & Kendall, T. (2015). Interventions to improve the experience of caring for people with severe mental illness: Systematic review and meta-analysis. *British Journal of Psychiatry*, 206(4), 268–274. <http://dx.doi.org/10.1192/bjp.bp.114.147561>.

## Appendix N: Brief Experiential Avoidance Questionnaire

(BEAQ: Gámez et al., 2014)

*Please rate the extent to which you agree or disagree with each of the following statements:*

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
The key to a good life is never feeling any pain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm quick to leave any situation that makes me feel uneasy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When unpleasant memories come to me, I try to put them out of my mind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel disconnected from my emotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I won't do something until I absolutely have to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear or anxiety won't stop me from doing something important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would give up a lot not to feel bad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I rarely do something if there is a chance that it will upset me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's hard for me to know what I'm feeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to put off unpleasant tasks for as long as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I go out of my way to avoid uncomfortable situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
One of my big goals is to be free from painful emotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I work hard to keep out upsetting feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I have any doubts about something, I just won't do it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pain always leads to suffering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix O: Experiential Avoidance in Caregiving Questionnaire

(EACQ: Losada et al., 2014)

*Please rate the truth of each statement as it applies to you using the following scale:*

	Not at all	A little	Somewhat	Often	A lot.
One should not have bad thoughts about the person you are caring for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have never felt bad in relation to caring for my relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I avoid thinking that other relatives are behaving selfishly, and always tend to excuse them by thinking things like 'they're busier, poor guys, they have their own lives...'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I cannot bear it when I get angry with my relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
One should not feel rejection or other unpleasant emotions about the person you are caring for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is normal for a caregiver to have negative thoughts about the person they are caring for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Every time I start to have bad thoughts about my relative or my situation as a caregiver, I try to escape from them and distract myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is normal to feel stress and depression when you are caring for a dependent relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am scared by the emotions and thoughts I have about my relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I have negative emotions in relation to the caregiving, I try to occupy myself with some other activity to make them go away quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a caregiver has negative thoughts toward his/her relative, the best thing to do is try to ignore them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I tend to 'ignore' the negative thoughts that come to me about my relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is harmful for a caregiver to stop and analyze his/her negative feelings toward his/her ill relative or another relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinking too much about what a caregiver feels and thinks about his/her caregiving situation is harmful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In difficult caregiving situations where I need some type of support, I prefer not to talk about it with other relatives if it might lead to conflict	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Appendix P: Relational Anxiety subscale of the Relationship Awareness Scale**

**(RAS: Snell, 1998)**

*Please indicate how uncharacteristic or characteristic each of the following statements is in describing you:*

	Not at all characteristic of me.	Slightly characteristic of me.	Somewhat characteristic of me.	Moderately characteristic of me.	Very characteristic of me.
I usually feel quite anxious about my intimate relationships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It takes me time to get over my shyness in a new close relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intimate relationships make me feel nervous and anxious.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am somewhat awkward and tense in intimate relationships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel nervous when I interact with a partner in an intimate relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more anxious about intimate relationships than most people are.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel uncomfortable when I think about talking with an intimate partner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would feel inhibited and shy in an intimate relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would feel anxious in a new intimate relationship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

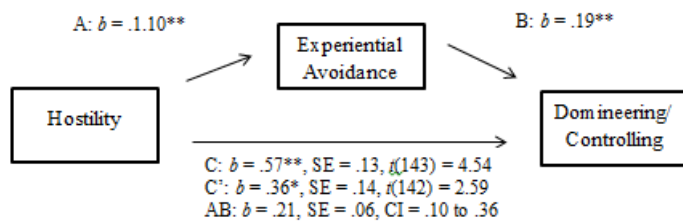
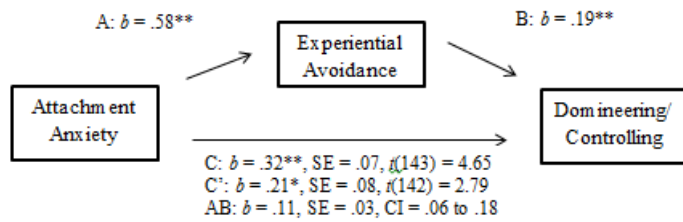
**Appendix Q: Hostility subscale of the Aggression-Questionnaire**

**(AQ: Buss & Perry, 1992)**

*Please indicate how uncharacteristic or characteristic each of the following statements is in describing you:*

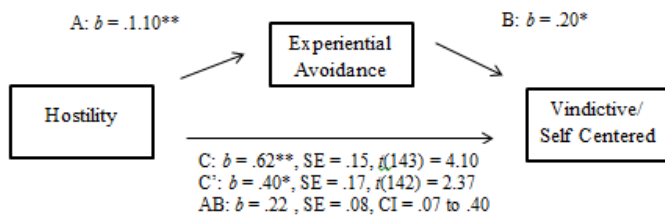
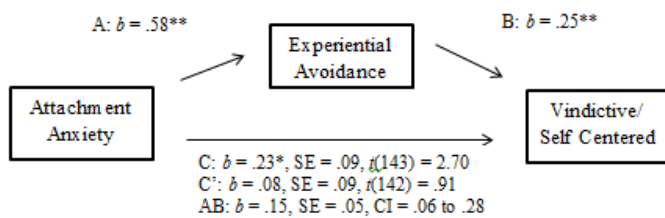
	Not at all characteristic of me.	Slightly characteristic of me.	Somewhat characteristic of me.	Moderately characteristic of me.	Very characteristic of me.
I am sometimes eaten up with jealousy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At times I feel I have gotten a raw deal out of life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other people always seem to get the breaks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I wonder why sometimes I feel so bitter about things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know that friends talk about me behind my back.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am suspicious of overly friendly strangers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes feel that people are laughing at me behind me back.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When people are especially nice, I wonder what they want.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix R: Reverse analysis figures



Note. \* $p < .05$ , \*\* $p < .01$

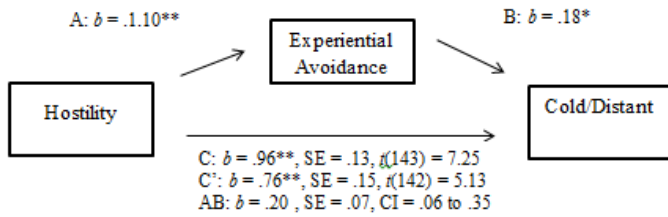
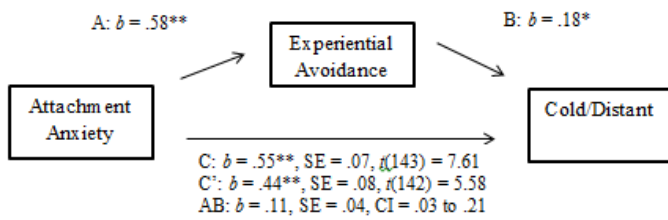
Figure 13. Mediation of attachment anxiety/hostility and overly accommodating interpersonal problems by experiential avoidance



Note. \* $p < .05$ , \*\* $p < .01$

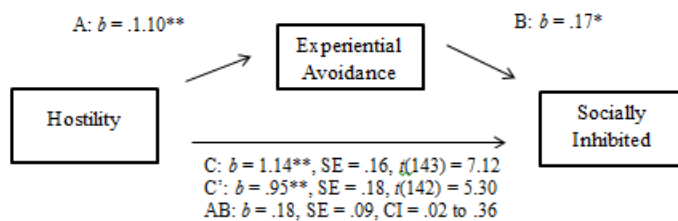
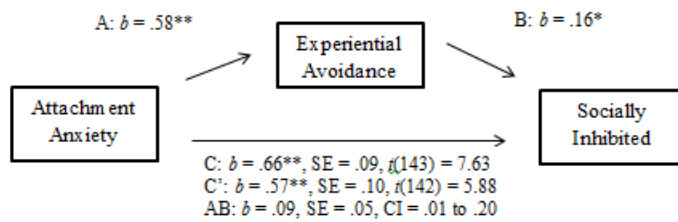
Figure 14. Mediation of attachment anxiety/hostility and vindictive/self centered interpersonal problems by experiential avoidance





Note. \* $p < .05$ , \*\* $p < .01$

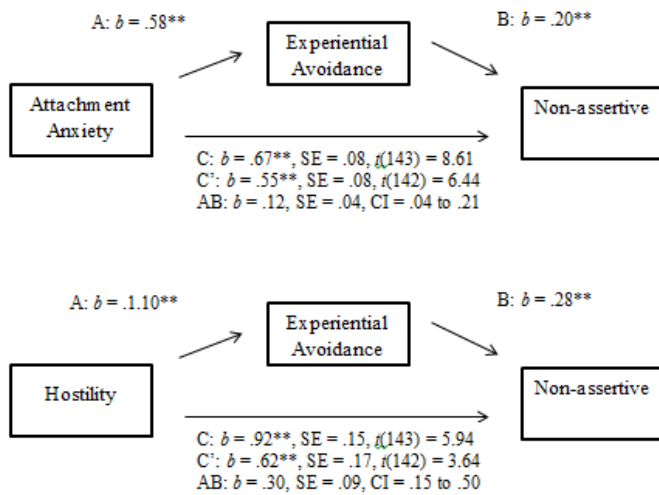
Figure 15. Mediation of attachment anxiety/hostility and cold/distant interpersonal problems by experiential avoidance



Note. \* $p < .05$ , \*\* $p < .01$

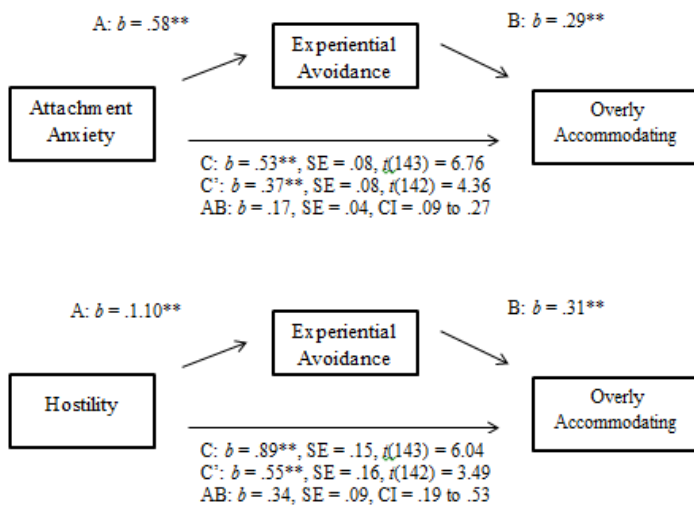
Figure 16. Mediation of attachment anxiety/hostility and socially inhibited interpersonal problems by experiential avoidance





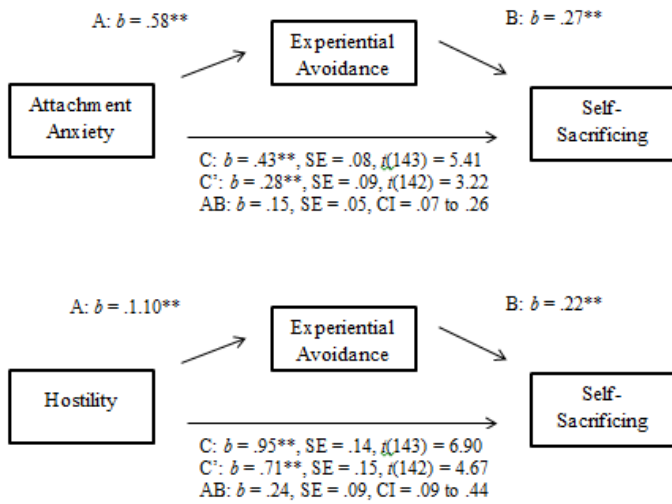
Note. \* $p < .05$ , \*\* $p < .01$

Figure 17. Mediation of attachment anxiety/hostility and non-assertive interpersonal problems by experiential avoidance



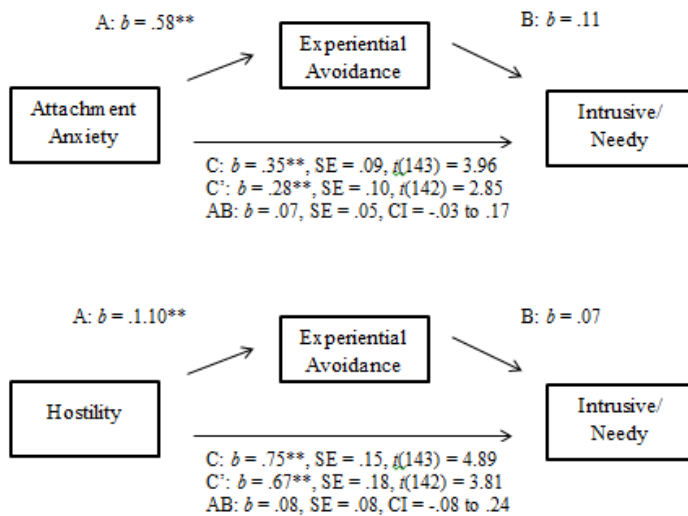
Note. \* $p < .05$ , \*\* $p < .01$

Figure 18. Mediation of attachment anxiety/hostility and overly accommodating interpersonal problems by experiential avoidance



Note. \* $p < .05$ , \*\* $p < .01$

Figure 19. Mediation of attachment anxiety/hostility and self-sacrificing interpersonal problems by experiential avoidance



Note. \* $p < .05$ , \*\* $p < .01$

Figure 20. Mediation of attachment anxiety/hostility and intrusive/neediness interpersonal problems by experiential avoidance

## **Appendix S: Article based on Study 4**

### **Pilot of an Acceptance and Commitment Therapy and Schema group intervention for Mental Health Carer's Interpersonal Problems**

#### **Introduction**

The term 'mental health carer' refers to any person who voluntarily provides ongoing care and assistance to another person because of mental health issues (Carers Recognition Act, 2010). The last decade has seen increased focus on the complex interpersonal patterns that exist between carers and care receivers. This has been in response to advocacy by carers for recognition of the interpersonal aspects of their role (Wilkinson & McAndrew, 2008; Henderson, 2001; Sadler & McKeivitt, 2013) and criticisms of the intrapersonal focus embed in carer research, policy and service delivery (Chattoo & Ahmad, 2008). Mental health carers place great value on sustaining a comfortable and loving relationship with the person for whom they provide care (Gray, Seddon, Robinson, & Roberts, 2009; Lawn & McMahon, 2014; Spector, Charlesworth, Orrell, & Marston, 2016), and such relationships are associated with increased carer coping and resiliency (Wadham, Simpson, Rust, & Murray, 2016), increased wellbeing (Braithwaite, 2000), and decreased stress and depression (Oyebode, 2003). However, nearly one in five mental health carers experience clinically significant interpersonal problems (Author, work in preparation), highlighting the importance of supporting mental health carers in their interpersonal functioning.

There are a range of interventions to address caregiver's relational difficulties- such as group interventions for expressed emotion (Sadath, Muralidhar, Varambally, & Gangadhar, 2017) and communication tools (Done & Thomas, 2001; Young, Manthorp, Howells, & Tullo, 2011). However, such interventions target specific relational difficulties in isolation rather than interpersonal functioning as a whole. In addition, the most common outcome measures utilised in mental health carer interventions are psychological distress and carer burden (Arksey, 2003; Yesufu-Udechuku et al., 2015). To the author's knowledge, there is no current research utilising interpersonal problems as an outcome of mental health carer intervention, despite the high prevalence.

Interpersonal problems have been defined as difficulties encountered when interacting, or attempting to interact with others (Horowitz, 1979; Leary, 1957). Interpersonal problems have been conceptualised as falling into eight categories of behaviour; domineering/controlling, vindictive/self-centred, cold/distant, socially inhibited, non-assertive, overly accommodating, self-sacrificing and intrusive/needy (Horowitz, Alden, Wiggins, & Pincus, 2000). Interventions for such interpersonal problems are pluralistic and employ techniques specific to each domain (Cain, Pincus, & Holtforth, 2010). When working across domains, interventions need to display flexibility in accommodating different presentations and address the psychological processes thought to maintain relational dysfunction (Alden & Capreol, 1993).

Several theories of interpersonal problems point to the role of experiential avoidance, defined as attempts to avoid internal stimuli even when doing so creates harm (Hayes, Strosahl, & Wilson, 1999) as contributing to or perpetuating relational dysfunction (Holtforth, 2008; Holtforth, Bents, Mauler, & Grawe, 2006; Inge, 1992; Sullivan, 1953). Recent empirical studies indicate a strong relationship between experiential avoidance and interpersonal problems in the general population (Gerhart, Baker, Hoerger, & Ronan, 2014) and mental health caregiver populations (Author, work in preparation). Thus, experiential avoidance has been proposed as a core process to address when planning relational interventions. Caregivers exhibit moderate to high levels of experiential avoidance (Ulstein,

Wyller, & Engedal, 2008), which is associated with a host of negative outcomes (Chawla & Ostafin, 2007; Cristea, Montgomery, Szamoskozi, & David, 2013; Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Lillis, Levin, & Hayes, 2011). For example, experiential avoidance predicts negative expectations of relationships in mental health carers (Author, work in preparation). Negative expectations of relationships are strongly held beliefs about self and others that contribute to rigid patterns of interpersonal behaviour (Downey, Freitas, Michaelis, & Khouri, 1998). In turn, these expectations have been found to mediate the relationship between experiential avoidance and particular types of interpersonal problems in mental health carer's (Author, work in preparation). It follows that an intervention designed to reduce mental health carer's interpersonal problems would target experiential avoidance and negative expectations of relationships and display flexibility in responding to different interpersonal presentations.

Acceptance and Commitment Therapy (ACT) is a 'third wave' behaviour therapy intervention that utilises acceptance and mindfulness techniques, alongside behaviour change processes, to promote psychological flexibility (Hayes et al., 2006). ACT represents a promising intervention for caregiver populations in a range of contexts. There is evidence for the effectiveness of ACT for carers of people with terminal illness (Davis, Deane, & Lyons, 2015), dementia (Hurley, Patterson, & Cooley, 2014) and Autism (Blackledge & Hayes, 2006), as well as improving outcomes for support staff (Noone & Hastings, 2011) and parents of children with intellectual disabilities (Rayan & Ahmad, 2017). The application of ACT for relationship difficulties is a growing field, with emerging theoretical models (Dahl, Stewart, Martell, Kaplan, & Walser, 2014; Harris, 2010). ACT can be seen to have a strong rationale for addressing interpersonal problems in mental health carers, as it directly targets the psychological processes thought to maintain relational dysfunction (i.e. experiential avoidance and negative expectations of relationships).

Substantial evidence indicates that ACT decreases experiential avoidance in both clinical and normal populations (see Choi, Vickers, & Tassone, 2014 for a review) and increases willingness to engage in activities whilst experiencing difficult emotions (Eifert & Heffner, 2003; Levitt, Brown, Orsillo, & Barlow, 2004). In relation to carers, a study comparing the impact of ACT and CBT found that whilst both reduced depressive symptoms in carers, only the former was associated with reductions in caregiver's experiential avoidance (Losada et al., 2015). ACT targets experiential avoidance by promoting acceptance- defined as 'actively contacting psychological experiences – directly, fully, and without needless defence- while behaving effectively' (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996, p.1163). Acceptance is associated with a host of positive outcomes (for a review see Williams & Lynn, 2010) and is related to emotional wellbeing in caregivers (Beer, Ward, & Moar, 2013). A growing body of research argues that targeting experiential avoidance using an acceptance framework is particularly applicable to the carer population, as the realities of mental health caregiving are not always amendable to the problem solving techniques of CBT (Losada et al., 2015; Leoni, Corti, Cavagnola, Healy, & Noone, 2016). The significance of this is further highlighted by some research that has found caregivers' attempts to directly reduce or solve unpleasant emotional experiences is associated with increased stress and burden (Devereux, Hastings, & Noone, 2009).

Mindfulness is a key element of ACT interventions and has been used to promote acceptance. Mindfulness is described as a state of being open and aware (Hayes, 2004), and has been associated with reductions in interpersonal problems (Millstein, Orsillo, Hayes-Skelton, & Roemer, 2015), increased empathic perspective taking (Birnie, Speca, & Carlson, 2010), increased emotional regulation and decreased reactivity (D. Davis & Hayes, 2011), increased social connectedness (Cohen & Miller, 2009) and improved relationship functioning (Carson, Carson, Gil, & Baucom, 2004). Operationally, mindfulness is

understood as a collection of related ACT processes that function to undermine verbal frameworks (Fletcher & Hayes, 2005), and enhance acceptance, defusion, contact with the present moment and self as observer. Through encouraging individuals to “pay attention to what is happening in the moment, in a non-judgemental way, without relying on previous schemas” (Li, Yuan, & Zhang, 2016, p. 293), mindfulness has the potential to reduce negative expectations of relationships. The ACT skill of cognitive defusion has particular relevance for reducing negative expectations of relationships. Cognitive defusion describes the process of perceiving thoughts as mental events rather than literal truths (Hayes et al., 2006) and assists one to make behavioural choices based on values rather than falling into automatic patterns. For example, defusion may assist a mental health carer to recognise their negative expectation “What’s the point, they won’t listen” is just a thought, enabling them to work towards their value of communication even in the face of anxious feelings. Evidence suggests that cognitive defusion is associated with less believability and emotional impact of negative thoughts (Mandavia et al., 2015; Masuda et al., 2010), and predicts more approach and less avoidance coping behaviour (Donald, Atkins, Parker, Guo, & Christie, 2017).

As outlined, ACT has a strong foundation for addressing interpersonal problems in mental health carers. Carer interventions with two or more conceptually different approaches consistently achieve more positive outcomes, and such multicomponent interventions are most effective when delivered in a group format (Dickinson et al., 2016; Carers NSW, 2017). A protocol for an ACT and Schema group intervention has been found to be effective at helping individuals overcome maladaptive interpersonal behaviour (Lev, 2011; McKay, Lev, & Skeen, 2012). Schemas are cognitive frameworks regarding self and others, and thus, include negative expectations of relationships (Beck, 1964; Young, Klosko, & Weishaar, 2006). Schemas have a strong history within the interpersonal development field and have been posed to contribute to and maintain interpersonal dysfunction (Beckley, 2011; Douglas, Binder, Kajos, Hyde, & Li, 2013; Thimm, 2013). The inclusion of schemas in a caregiver intervention is novel, with only one other paper incorporating this in therapy with carers of those entering hospice (Lindstrom & Melnyk, 2013). The current study aims to pilot an ACT and Schema group intervention for mental health carers’ interpersonal problems, examining acceptability and conducting preliminary assessment of effectiveness.

## **Method**

### **Study design**

This pilot study had a mixed methods design, incorporating both quantitative and qualitative data. Quantitative data was gained through assessment booklets administered at week one, week six and week twelve of the program, with two additional measures administered on a weekly basis. Qualitative data was gained through focus groups conducted three months post intervention. This study was approved by the University of Wollongong Human Research Ethics Committee.

### **Pilot testing and participants**

The program was pilot tested in three community mental health organisations in the state of New South Wales, Australia. Due to the length of the program and constraints of service capacity, multiple programs were conducted over the period of late 2015 to mid-2017. On each occasion, the service advertised the program to their current client base using flyers and word of mouth. Interested caregivers were invited to attend an intake meeting where suitability for the program was assessed and information on the research provided. Exclusion criteria included 1) acute crisis, 2) moderate to high suicide risk, 3) mental health or cognitive difficulties that would significantly impact upon engagement, 4) lack of insight into

interpersonal difficulties, 5) inability to commit to the twelve week program. Caregivers provided written consent at the intake meeting.

### Intervention

The intervention consisted of a group program aimed to assist mental health caregivers to build stronger and more mindful relationships, titled ‘Me and My Relationships’ (MMR). The program was closely based on an existing 10 week protocol by McKay et al. (2012) but adapted to be suitable to the mental health carer population. The MMR program was structured over 12 weeks, with each session of 1.5 hours duration. Program content is outlined in Table 1. A detailed facilitator’s handbook was developed in order to ensure consistency in delivery across sites and a client handbook containing information and worksheets was provided to participants. The main facilitator held a Bachelor’s degree in psychology and provisional registration as a psychologist. Co-facilitation was by a nominated staff member of the host organisation, who was required to hold bachelor level qualifications in psychology, counselling or social work.

Table 1.

*Structure and components of the Me and My Relationships program*

Phase	Week	Session content
Understanding current patterns	Week 1	Icebreaker, orientation, group rules, introductions to schemas and mindfulness
	Week 2	Mindfulness, review schemas, eco-map
	Week 3	Mindfulness, schema questionnaire; identifying my patterns
	Week 4	Mindfulness, schema coping behaviours, costs and benefits of common coping <u>behaviors</u>
	Week 5	Mindfulness, secondary pain, creative hopelessness, self as observer
Transforming current patterns	Week 6	Mindfulness, value clarification, setting values-oriented goals, barriers; monsters on the bus
	Week 7	Mindfulness, review and set new goals, <u>defusion</u> psychoeducation and practice
	Week 8	Review and set new goals, self-evaluations and fusion, self as observer, mindfulness
Strengthening new patterns	Week 9	Review and set new goals, willingness, workability of anger, valued responding, mindfulness
	Week 10	Review and set new goals, workability of emotional control, <u>defusion</u> , self as observer, mindfulness
	Week 11	Review and set new goals, effective communication, acceptance, termination preparation, mindfulness
	Week 12	Review and set new goals , compassion, eco map, future triggers, barriers and coping strategies

### Measures

In addition to information on socio-demographic data, several self-report questionnaires were utilised.

The *Inventory of Interpersonal Problems 32* (IIP-32: Barkham, Hardy, & Startup, 1996; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988) was utilised to measure interpersonal difficulties. Containing 32 items, it produces eight subscales that correspond to the eight interpersonal problem domains. Example items include ‘I find it hard to really care about other people’s problems’ (vindictive/self-centred) and ‘I let other people take advantage of me too much’ (overly accommodating). Questions are answered on a 5-point Likert scale (0 = not at all, 4 = extremely), summed and standardized according to community norms. A T-score of 50 represents the mean, with a score of 60 or greater indicating above average difficulty, and a score of 70 or greater indicating significant difficulty (Horowitz et al., 2000). The IIP has high internal and test-retest reliability and convergent and criterion validity (Alden et al., 1990; Barkham et al., 1996; Horowitz et al., 1988).

The *Brief Experiential Avoidance Questionnaire* (BEAQ: Gámez et al., 2014) was utilised to measure experiential avoidance of painful emotions and uncomfortable situations. It consists of 15 items (e.g. ‘I work hard to keep out upsetting feelings’) measured on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). Responses are summed with higher values indicating greater experiential avoidance. The BEAQ contains Cronbach’s alphas ranging from .80 to .89 (Gámez et al., 2014). In addition, the *Experiential Avoidance in Caregiving Questionnaire* (EACQ: Losada, Márquez-González, Romero-Moreno, & López, 2014) was used to measure experiential avoidance of emotions, thoughts and sensations specific to caregiving. The EACQ contains 15 items (e.g., ‘thinking too much about what a caregiver feels and thinks about his/her caregiving situation is harmful’) answered on a 5-point Likert scale (1 = ‘not at all’, 6 = ‘a lot’). Responses are summed with higher values associated with greater experiential avoidance within the caregiving context. The EACQ shows acceptable psychometric properties with a Cronbach’s alpha of 0.70 (Losada et al., 2015).

The *Mindfulness Awareness Attention Scale* (MAAS: Brown & Ryan, 2003) was chosen to measure dispositional mindfulness (i.e., inherent capacity). It consists of 15 items (e.g., ‘I find myself doing things without paying attention’) answered on a 6-point Likert scale (1 = ‘almost always’, 6 = ‘almost never’). Items are summed, with higher scores indicating higher levels of dispositional mindfulness. The MAAS-15 has been shown to be a reliable and valid instrument for use in general adult populations, with a Cronbach’s alpha ranging from 0.82 to 0.87 (Brown & Ryan, 2003).

The *Outcome Rating Scale* (ORS: Miller, Duncan, Brown, Sparks, & Claud, 2003) was utilised to measure changes in quality of life. The ORS is a visual analogue scale with four items that measure individual well-being, interpersonal well-being, social well-being and general well-being. Participants rate how they feel that that area of their life has been for them over the course of a week on a line ranging from 0 to 10. Items are scored and totalled using a 10mm ruler. Scores of approximately 25 representing optimal wellbeing with a ceiling effect of 40. This measure has a reported coefficient alpha of .93 and good internal consistency and test-retest reliability (Miller et al., 2003; Bringham, Watson, Miller, & Duncan, 2006).

The *Session Rating Scale* (SRS: Duncan et al., 2003) was utilised to measure participant’s perception of the usefulness and effectiveness of the MMR program. The SRS is a visual analogue scale that provides feedback on four items: perceptions of the therapeutic relationship, goals and topics, approach and methods, and overall satisfaction. Participants indicate how well they feel the delivered intervention meets each criterion on a line ranging from 0 to 10. Items are scored and totalled using a 10mm ruler. Higher scores indicate greater satisfaction with the intervention, with optimal scores in the 36-40 range. The SRS demonstrates impressive internal consistency and test-retest reliability (Miller et al., 2003;

Duncan et al., 2003).

All measures were collected at commencement of the program (week one), at the mid-point (week six) and at the final week (week twelve). In addition, the ORS and SRS were completed on a weekly basis. Three months following the first MMR group, participants were invited to attend a focus group to explore their experience of the program and its impact on their caring relationships. This process was repeated for the second and third group. Focus group participants were provided with an information sheet and written consent was obtained. Each focus group was facilitated by the first author, who was not directly involved in delivering the intervention. Questions included: 1) Has the program assisted you with managing your interpersonal difficulties with the person you are caring for? (If yes: how?), 2) What changes (if any) have you noticed in your relationships since completing the program? 3) Since completing the program, have you noticed any change in your capacity to accept or your tendency to avoid difficult relationship experiences? (If yes: please describe these changes), 4) Could you describe any helpful events during the program? 5) Could you describe any hindering events during the program?

## **Data analysis**

### **Quantitative**

A series of one-way repeated measure ANOVAs were conducted to assess changes on all outcome measures over the three time points (Weeks 1, 6, 12). Normality tests indicated our variables of caregiving avoidance, experiential avoidance, mindfulness and wellbeing were all normally distributed, with mild to moderate skewness present for several of the interpersonal problem domain variables. Where variables displayed skewness, non-parametric equivalents were conducted. Mauchly's test of sphericity was assessed for all ANOVAs, with a Greenhouse Geisser correction applied where this assumption was not met. Where ANOVAs indicated significant effects by time, we conducted stepdown paired comparisons using a Bonferroni correction to control for Type 1 errors. Cohen's *d* effect sizes for significant paired comparisons were calculated using <http://www.socscistatistics.com/effectsize/Default3.aspx> (accessed 17 October 2017). Interpretation was as follows: 0.2 to 0.4 representing a small effect, 0.5 to 0.7 representing a medium effect, 0.8 and above representing a large effect (Cohen, 1988). All analyses were conducted using the IBM SPSS Statistics package version 21.

In light of suggestions that measuring only the mean interpersonal problem value on the IPP negates individual differences (Salzer, Winkelbach, Leibing, Pincus, & Leichsenring, 2011), additional analysis were undertaken. We examined reductions in problematic interpersonal problems on an individual level and noted which participants saw reductions from the above average range to the average range. To assess acceptability, we examined mean scores on the SRS, number of sessions attended by each individual and the timing of missed sessions, and we noted whether any participants dropped out of the program and at what point this occurred (attrition).

### **Qualitative**

Qualitative analysis consisted of thematic analysis guided by the steps outlined by Braun and Clarke (2006). Focus group dialogues were transcribed verbatim and de-identified labels were used in the interest of confidentiality. Initial codes and themes were developed using a grounded theory approach following careful reading and re-reading of transcripts by two researchers. To assist with interrater reliability, a manual was created which listed codes, descriptions of each code, example quotes and emergent themes. Codes and themes underwent successive rounds of comparison, within and across focus groups, as we compared their content and meaning in relation to one another and to the dataset in its entirety. Once the



list of themes was finalised, a name was given to each theme thought to capture its essence and the final report was produced.

## Results

As shown in the study flowchart (Figure 1), 34 participants attended an intake meeting. Two decided that they did not wish to take part in the program, and four were deemed not appropriate according to exclusion criteria. Thus 28 clients began the program, of which 24 successfully completed. The majority of participants were older women caring for their child, whom had been in their caring role for greater than ten years. The mental health condition of the care-receiver varied although the majority of carers identified they perceived the care-receiver to be in recovery. Demographic information on the participants is included in Table 2. Of this original sample, 50% (n = 12) took part in focus groups.

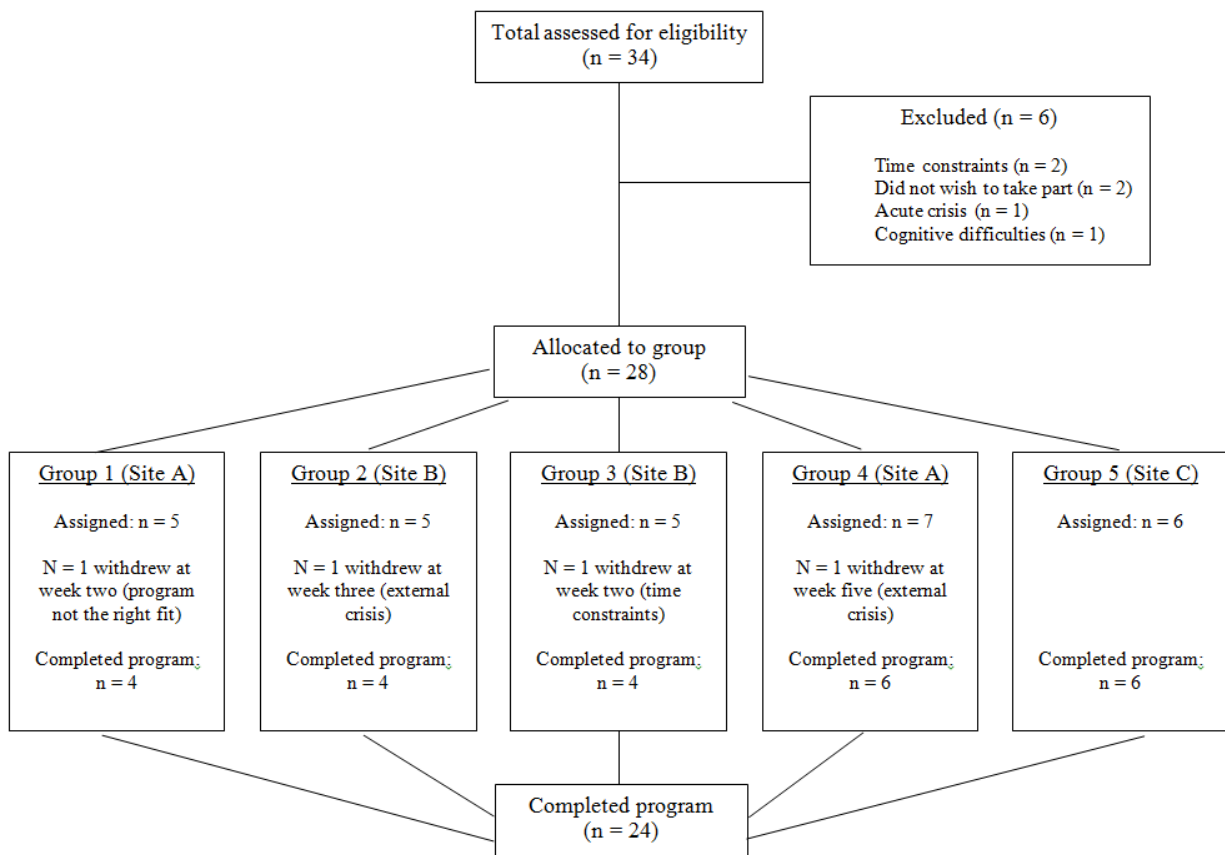


Figure 1. Consort diagram

Table 2

*Characteristics of mental health carers who participated in the program (n = 24)*

Category	Frequency (%)
<b>Sex</b>	
Female	20 (83.3%)
Male	4 (16.7%)
<b>Age</b>	
26-50	5 (20.8%)
51-74	16 (66.7%)
75+	3 (12.5%)
<b>Relationship to care-receiver</b>	
Parent	12 (50%)
Spouse	7 (29.2%)
Sibling	2 (8.3%)
Other relative	3 (12.5%)
<b>Length of time caring</b>	
Less than 6 months	2 (8.3%)
3-6years	2 (8.3%)
6-10 years	6 (25.0%)
10+ years	14 (58.3%)
<b>Mental Health Condition of care-receiver (as identified by carer)</b>	
Depression	10 (41.7%)
Anxiety	13 (54.2%)
Bipolar	6 (25.0%)
Post-Traumatic Stress Disorder	5 (20.8%)
Borderline Personality Disorder	7 (29.2%)
Schizophrenia	5 (20.8%)
Substance Use Difficulties	2 (8.3%)
<b>Care-receiver identified as in recovery</b>	
Yes	11 (45.8%)
No	6 (25.0%)
Not sure	7 (29.2%)

*Note.* Total frequency of mental health conditions is greater than sample size (n=24) due to multiple diagnoses being able to be endorsed

### *Acceptability*

Retention and participation rates were high. The vast majority of participants (85%) assigned to the program completed it. Of the four participants who withdrew from the program, all did so during the first half of the program (week 2; week 2; week 3 and week 5). Attendance was consistently high, with 11 participants (46% of sample) attending the entire program, 11 participants (46%) attending 11 of the 12 sessions, and 2 participants (8%) attending 10 of 12 sessions. No participants attended less than 10 sessions. Across the entire pilot, the average number of sessions attended was 11.38. Of the 15 sessions missed across all groups, examining the timing of these indicated the vast majority (80%) occurred in the second half of the program. In particular, weeks 8 to 10 was a period of risk that accounted for 60% of the total missed sessions.

The Session Rating Scale indicated consistently positive feedback on the program, with an average score of 35.8 at week one (n = 24), 36.5 at week six (n = 24) and 38.7 at week twelve (n = 24). The average SRS score across all weeks and all five groups was 37.3

out of a possible 40 (n = 273).

*Preliminary testing of effectiveness*

Descriptive statistics and repeated measure ANOVA results are presented in Table 3. Ten of the thirteen ANOVAs indicated that there were significant differences on measures over time. Stepdown paired comparisons indicated total interpersonal problems significantly reduced between week one and twelve (Mdiff = 8.55, 95% CI 2.28 to 14.80) with a large effect size ( $d = 0.86$ ). On the domain level, domineering/controlling significantly reduced between week six and twelve (Mdiff = 3.46, 95% CI 2.26 to 6.66) with a small effect size ( $d = 0.39$ ). Cold/distant reduced between week one and twelve (Mdiff = 6.67, 95% CI .14 to 13.19) with a medium effect size ( $d = 0.55$ ). Non-assertive reduced between week one and twelve (Mdiff = 8.29, 95% CI 1.42 to 15.16) with a medium effect size ( $d = 0.70$ ). Overly accommodating reduced between week one and six (Mdiff = 6.84, 95% CI 1.02 to 12.64) with a medium effect size ( $d = 0.58$ ), in addition to week one and twelve (Mdiff = 8.38, 95% CI 1.97 to 14.78), medium effect size ( $d = 0.73$ ). Due to the presence of mild to moderate skewness on several interpersonal problem variables, nonparametric Friedman’s tests were conducted with Wilcoxon Signed Ranks tests to assess paired comparisons. All nonparametric tests were consistent with those from the ANOVA results with regard to significant effects.

On our remaining variables, experiential avoidance significantly reduced between week one and twelve (Mdiff = 10.04, 95% CI 4.30 to 15.78) with a large effect size ( $d = 0.89$ ). Caregiving avoidance reduced between week six and twelve (Mdiff = 5.13, 95% CI 1.72 to 8.53) with a medium effect size ( $d = 0.73$ ), in addition to week one and twelve (Mdiff = 7.63, 95% CI 3.92 to 11.33), large effect size ( $d = 1.04$ ). Mindfulness increased between week one and six (Mdiff = -7.46, 95% CI -12.46 to -2.45) with a medium effect size ( $d = 0.59$ ), in addition to week one and twelve (Mdiff = -10.13, 95% CI -15.89 to -4.36), large effect size ( $d = 0.84$ ). Wellbeing increased between week one and six (Mdiff = -5.21, 95% CI -9.76 to -.66) with a medium effect size ( $d = 0.63$ ), week six and twelve (Mdiff = -5.6, 95% CI -9.46 to -1.75) with a medium effect size ( $d = 0.72$ ) and week one and twelve (Mdiff = -10.81, 95% CI -14.46 to -7.16) with a large effect size ( $d = 1.50$ ).

Table 3  
Means, standard deviations and repeated measures ANOVA's over time (n = 24)

Measures	Week 1		Week 6		Week 12		F value (df = 2, 46)
	Mean	SD	Mean	SD	Mean	SD	
Total Interpersonal Problems	61.88 <sup>a</sup>	11.19	56.92	10.93	53.33 <sup>a</sup>	8.58	6.63**
Domineering/Controlling	53.58	12.29	52.00 <sup>a</sup>	9.35	48.54 <sup>a</sup>	8.28	4.64*
Vindictive/Self-Centered	55.25	13.68	50.50	8.56	49.25	8.12	2.51#
Cold/Distant	57.21 <sup>a</sup>	14.26	52.50	10.44	50.54 <sup>a</sup>	9.52	4.75*
Socially Inhibited	56.96	13.16	53.33	12.02	51.21	10.96	2.28
Non-assertive	62.83 <sup>a</sup>	11.76	58.04	12.29	54.54 <sup>a</sup>	10.32	5.13*
Overly Accommodating	64.38 <sup>ab</sup>	12.58	57.54 <sup>a</sup>	11.01	56.00 <sup>b</sup>	10.39	8.21**
Self-Sacrificing	61.67	11.82	59.42	8.99	55.83	8.49	3.81*
Intrusive/Needy	55.04	11.12	55.25	11.66	52.54	9.90	0.87
Experiential avoidance	54.17 <sup>a</sup>	13.00	49.00	11.90	44.13 <sup>a</sup>	9.50	10.21***
Caregiving avoidance	39.63 <sup>a</sup>	8.03	37.13 <sup>b</sup>	7.35	32.00 <sup>ab</sup>	6.55	17.07***
Mindfulness	48.00 <sup>ab</sup>	12.75	55.46 <sup>a</sup>	12.87	58.13 <sup>b</sup>	11.40	13.75**
Wellbeing	19.98 <sup>ab</sup>	7.77	25.19 <sup>bc</sup>	8.78	30.79 <sup>ac</sup>	6.45	23.92***

Note.  
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

<sup>abc</sup> Means that share a superscript in each row are significantly different at  $p < .05$  (Bonferroni adjusted)

# Greenhouse Geisser adjustment (df = 1.51, 34.61)

We also examined the number of individuals scoring in the above average range ( $\geq 60$ ) for interpersonal problem domains across the three time points of the intervention. As indicated in Table 4, the total interpersonal problem score displayed a 71.4% decrease between week one and twelve. At the domain level the number of participants scoring in the above average range reduced by at least 50%, with a range of 50% (domineering/controlling) to 62.5% (self-sacrificing).

**Table 4.**

*Proportions of individuals experiencing above average ( $\geq 60$ ) interpersonal problems at different points during the intervention (n = 24)*

	Week 1 % (N)	Week 6 % (N)	Week 12 % (N)
Domineering/Controlling	16.7% (4)	25.0% (6)	8.3% (2)
Vindictive/Self-Centered	25.0% (6)	12.5% (3)	8.3% (2)
Cold/Distant	37.5% (9)	20.8% (5)	16.7% (4)
Socially Inhibited	41.7% (10)	29.2% (7)	20.8% (5)
Non-assertive	58.3% (14)	41.7% (10)	20.8% (5)
Overly Accommodating	62.5% (15)	37.5% (9)	29.2% (7)
Self-Sacrificing	66.7% (16)	54.2% (13)	25.0% (6)
Intrusive/Needy	29.2% (7)	25.0% (6)	12.5% (3)
Total Interpersonal Problems	58.3% (14)	33.3% (8)	16.7% (4)

### Qualitative results

Focus groups were held with prior participants of group one (n = 4), group two (n = 4) and group three (n = 4). All twelve participants attended, representing 50% of the original sample. Focus groups ran for approximately one hour duration and contained set questions regarding changes in relationships and acceptance since completing the program, in addition to discussion of helpful and hindering events. Themes are set out in the following section, in order of prevalence among participants. In what follows, quotes from participants are coded according to focus group attended (range of 1-3) and identifying number within that focus group (range of 1-4).

#### 1) Aspects of program (identified by 100% of participants; 26 references total)

Participants reflected on various aspects of the MMR program content that was most helpful for them.

The most helpful parts were the schemas- the things that drive your behaviour. The mindfulness, because it's key to me for separation of myself and feelings (1.1)

For me the biggest thing was values, the core values right down to the person that you want to be- and the question 'am I living by those values' (1.3)

Mindfulness has helped me a lot (3.1)

In addition, participants described relational experiences such as the social support of the group, connection with other participants and facilitators, and vicarious learning.

The facilitators were very caring, I felt like if I needed to talk I could talk (3.2)

You learn that you're not alone (1.4)

One of the other group members also had a daughter. I heard my story a bit, and how she deals with it. It made me realize that I need to let go a bit more (2.2)

## 2) Changes in Emotion (identified by 92% of participants; 22 references total)

Participants described changes in their emotions, which took two forms. First, participants described experiencing particular emotions at reduced frequency and intensity since completing the program.

I asked my wife and my daughter whether they'd noticed any changes since the course. My wife said that I'm less stressed and less angry. My daughter said I'm not as much of an emotional pushover (1.1)

I lived with a lot of guilt... I don't live with that guilt anymore (2.2)

My anxiety is not as bad as it used to be (3.4)

Second, participants described changes in their relationship with emotions, noting increased ability to accept emotions, increased willingness to feel, the ability to defuse and utilise self as context.

I sit back and feel the feelings, and practice feeling them. I try to be the sky, and I know that they are not really me (2.3)

I've got the ability to see it over there, leaves going down the river in the mindfulness sense, I can separate my emotions from who I am and what's important to me (3.3)

I'm not as afraid to address my feelings and think about it (1.4)

## 3) Reactivity (identified by 83% of participants; 23 references total)

Participants described decreased emotional reactivity and a sense that one could more mindfully 'respond' to difficult relational experiences.

I respond more. I've learnt not to react so much (1.1)

I didn't realize that the schemas caused me to react in the wrong way. It's made me realise how I was reacting was not good, and that I had to change as well (2.1)

Being able to manage how you react and respond to how you're feeling, rather than going into this chaotic emotional drama (2.4)

## 4) Acceptance of caregiving situation (identified by 75% of participants; 18 references total)

Participants described an increased ability to accept difficult characteristics of their mental health carer role, such as the care-receiver's mental illness and the ongoing nature of the role.

With my son I have accepted that that's his diagnosis, he's not going to change... I've got a lot more ability to accept things and say 'you can't change it' (1.4)

Realizing that's it life and it's not going to go away (2.3)

I have more understanding about my daughter, I accept it. When things are difficult, I go ahead more than before. Whatever comes I try to manage it (3.1)

5) Communication (identified by 67% of participants; 18 references total)

Participants discussed changes in communication within their caregiving and social relationships, including changes in quality of conversation, increased listening and increased reciprocal conversation.

I've learnt to listen closer to what my son says- actively listen- whereas before I would just go into my panic stage and not really hear it (1.2)

My husband is actually listening more and taking advice, whereas before he would just shut off (3.4)

Not as much fired up communication as before. It's more the quality of conversation and understanding now (3.2)

6) Agency (identified by 58% of participants; 14 references total)

Participants discussed changes in how they wielded agency within their caring relationship, such as increased willingness and ability to assert their needs.

I have tried to be more assertive. I have the strength now to say I have had enough, you need to stop. I feel stronger in myself (3.3)

I learnt how to actually be assertive about things and not aggressive when I wanted to say something (1.3)

For me it's taught me to be a bit more assertive, whereas before I would just do the run-away. I'm finding I'm not doing that, I'm actually voicing my opinion (1.2)

In addition, participants noted an increased willingness to let go of control, and provide the care receiver with more choices and responsibilities.

I'm coping a lot better at letting difficult situations be, without having to run up there in person and take control of everyone and everything (3.2)

I'm learning when to step in and when to step out (2.3)

I don't push him anymore now, I allow him to make the choice (1.2)

7) Connection (identified by 58% of participants; 13 references total)

Participants discussed changes in the quality of their carer and social relationships and connection they felt with others.

My relationship with my son is great, we're getting on great, he's posting things on Facebook like "I've got the greatest mum ever". A year ago if you'd said that it would have been "I wanna kill my mum" (1.4)

Now I feel like I'm living by my values, being the mum I want to be, being the friend I want to be, being the wife I want to be (2.4)

## Discussion

This study aimed to explore whether an ACT and Schema group program would be

acceptable to a mental health carer population and show preliminary effectiveness. Findings indicate that the interpersonal problem domains of domineering/controlling, cold/distant, non-assertive, overly accommodating, self-sacrificing- as well as the total interpersonal problem score- significantly reduced, when comparing measures collected at the last week of the program with those collected at the first week. This result is consistent with literature indicating interpersonal problems pertaining to overly accommodating and self-sacrificing experience the most gains from psychotherapy (Cain et al., 2010; Horowitz, Rosenberg, & Bartholomew, 1993; Renner et al., 2012). The interpersonal problem domains of vindictive/self-centred, socially inhibited and intrusive needy were not associated with statistically significant change over time. Two of these domains- vindictive/self-centred and intrusive/needy- have been identified as least amendable to psychotherapy (Cain et al., 2010; Horowitz et al., 1993; Renner et al., 2012). However, as participants commenced with different interpersonal profiles, group results should be interpreted with caution as individual changes can be masked. For example, excessively non-assertive carers may have increased in dominance and excessively domineering carers may have increased in non-assertiveness. The number of participants presenting with above average interpersonal problems reduced over time by at least 50% for each domain, with our three non-significant domains reducing by 66% (vindictive/self-centred), 50% (socially inhibited) and 58% (intrusive/needy). Qualitative findings provide insight into potential processes for managing interpersonal problems, with participants noting the importance of connection, communication, agency and processing of emotions.

Benefits outside of interpersonal functioning were also evident, with findings indicating participant's perceived mindfulness and wellbeing significantly increased, and perceived experiential and caregiving avoidance significant decreased, at the last week of program compared to the first. This is consistent with a large body of research on the impact of ACT-based interventions for caregiver populations (Leoni et al., 2016; Losada et al., 2015; Noone & Hastings, 2010; McConachie, McKenzie, Morris, & Walley, 2014). Qualitative results provided some insight into these changes, with participants noting increased emotional regulation, decreased reactivity, increased response flexibility and improved relationships- consistent with what we know to be the benefits of mindfulness (D. Davis & Hayes, 2011). In addition, participants noted increased willingness and acceptance- consistent with the experiential avoidance literature (Hayes et al., 1996). Although this study was not designed to determine causal relationships between variables, the theoretical framework suggests that mindfulness and experiential avoidance may be mechanisms of change in relation to interpersonal functioning. Considering experiential avoidance has been found to mediate the effect of mindfulness on multiple outcomes (for a review, see Weinrib, 2011), further investigation of the relationships between these variables is required.

Focus group responses, SRS scores, attendance and retention rates indicated that the MMR program was highly acceptable and no major modifications to the content are anticipated. Findings highlight the importance of retaining participants in the first half of the program, and encouraging attendance in the second half of the program. Out pattern of findings (majority of significant change occurring between the week one to week twelve time points) suggests the full duration of program is needed for maximum benefit. This is somewhat surprising in light of research suggesting the effect of therapy is greatest in early sessions with less rapid rates of change seen over time (Kopta, 2003; Stulz, Lutz, Kopta, Minami, & Saunders, 2013). The necessity of all twelve weeks may be explained by the sequential skill building structure of the MMR program, which contains an early emphasis on conceptual based exposure and gradual move towards behavioural implementation of core skills. Although the full program is relatively intensive, the success of the current pilot across three community organisations suggests promise for its future feasibility.

Considering the difficulties caregivers face in obtaining support due to time, distance and competing demands (Bormann et al., 2009; Moore & McArthur, 2007), the accessibility of the MMR program needs to be considered. On average, only 4.8 carers attended each program; the intervention was designed to accompany approximately 8 caregivers. Our study utilised participants who self-identified as experiencing interpersonal difficulties, however the use of a standardized screening process may assist in identifying additional carers who may benefit from the program. The Inventory of Interpersonal Problems- which provides a direct connection between assessment, interpersonal theory and intervention- represents one avenue for achieving this (Horowitz et al., 2000; Alden et al., 1990). Flexible modes of intervention delivery, such as correspondence (Deane, Marshall, Crowe, White, & Kavanagh, 2015) or technology assisted approaches (Scott et al., 2016) have shown promise for the caregiver population, and represent an additional avenue for improving the access of future MMR programs.

This study has several limitations which should be noted. The sample size was small and its self-selected nature means it is not representative of all mental health carers or their interpersonal profiles. The design of the study- open pilot with the absence of control group- does not allow for causal conclusions about the impact of the intervention. There were also a number of limitations in regards to our outcome measures. First, the inclusion of schema outcome measures may have assisted in capturing changes to negative expectations of relationships. Second, our measures were self-report in nature and relied exclusively on the mental health carers' perception of their relationships. Considering carers and care-receivers experience disparity in how they view their relationship (Manne et al., 2006), this study could have been improved by incorporating care-receivers perceptions of interpersonal functioning. Third, the collection of final measures at the last week of program- chosen to maximise completion rates given the small sample size- limits the generalizability of outcomes over time. Although post-intervention focus groups provided some indication of sustainability of change, the addition of longitudinal quantitative data would have enhanced our study.

## **Conclusion**

Although tentative, findings provide preliminary support for the utility of an ACT and Schema group intervention for improving interpersonal functioning in mental health carers. Given the high prevalence of interpersonal problems in this population (Author, work in preparation) and paucity of research in the area, further investigation is needed. Ideally, this would take the form of an adequately powered randomized controlled trial (RCT). The RCT could determine potential benefits of the intervention as compared to a control group, incorporate schema outcome measures and longitudinal data in the study design, and ascertain accessibility of the program.



## References

- Alden, L., & Capreol, M. (1993). Avoidant personality disorder: Interpersonal problems as predictors of treatment response. *Behavior Therapy, 24*(3), 357-376, doi:10.1016/S0005-7894(05)80211-4.
- Alden, L., Wiggins, J., & Pincus, A. (1990). Construction of circumplex scales for the Inventory of Interpersonal Problems. *Journal of Personality Assessment, 55*(3-4), 521-536. doi:10.1207/s15327752jpa5503&4\_10
- Arksey, H. (2003). Scoping the field: services for carers of people with mental health problems. *Health & Social Care in the Community, 11*(4), 335-344, doi: 10.1046/j.1365-2524.2003.00433.x
- Barkham, M., Hardy, G. E., & Startup, M. (1996). The IIP-32: A short version of the Inventory of Interpersonal Problems. *British Journal of Clinical Psychology, 35*(1), 21-35, doi:10.1111/j.2044-8260.1996.tb01159.x.
- Beck, A. T. (1964). Thinking and depression. II. Theory and therapy. *Archives Of General Psychiatry, 10*, 561-571, doi:10.1001/archpsyc.1964.01720240015003.
- Beckley, K. (2011). Making Sense of Interpersonal Dynamics: A Schema Focused Approach. In P. G. Willmot, N. (Ed.), *Working Positively with Personality Disorder in Secure Settings: A Practitioner's Perspective* (pp. 172-187): John Wiley & Sons.
- Beer, M., Ward, L., & Moar, K. (2013). The relationship between mindful parenting and distress in parents of children with an autism spectrum disorder. *Mindfulness, 4*(2), 102-112, doi:10.1007/s12671-012-0192-4.
- Birnie, K., Speca, M., & Carlson, L. E. (2010). Exploring self-compassion and empathy in the context of mindfulness-based stress reduction (MBSR). *Stress & Health: Journal of the International Society for the Investigation of Stress, 26*(5), 359-371, doi:10.1002/smi.1305.
- Blackledge, J. T., & Hayes, S. C. (2006). Using Acceptance and Commitment Training in the Support of Parents of Children Diagnosed with Autism. *Child & Family Behavior Therapy, 28*(1), 1-18, doi:10.1300/J019v28n01\_01.
- Bormann, J., Warren, K. A., Regalbuto, L., Glaser, D., Kelly, A., Schnack, J., & Hinton, L. (2009). A spiritually based caregiver intervention with telephone delivery for family caregivers of veterans with dementia. *Family & Community Health, 32*(4), 345-353, doi:10.1097/FCH.0b013e3181b91fd6.
- Braithwaite, V. (2000). Contextual or general stress outcomes: Making choices through caregiving appraisals. *The Gerontologist, 40*(6), 706-717, doi:10.1093/geront/40.6.706.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101, doi:10.1191/1478088706qp063oa.
- Bringhurst, D. L., Watson, C. W., Miller, S. D., & Duncan, B. L. (2006). The reliability and validity of the Outcome Rating Scale: a replication study of a brief clinical measure. *Journal of Brief Therapy, 5*, 23-30.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84* (4), 822-848, doi:10.1037/0022-3514.84.4.822.
- Cain, N. M., Pincus, A. L., & Holtforth, M. G. (2010). Interpersonal Subtypes in Social Phobia: Diagnostic and Treatment Implications. *Journal of Personality Assessment, 92*(6), 514-527, doi:10.1080/00223891.2010.513704.
- Carers NSW. (2017). *Carer Counselling Literature Review*.
- Carers Recognition Act NSW. (2010). Available from <https://www.legislation.nsw.gov.au/#/view/act/2010/20/whole>.

- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behavior Therapy, 35*(3), 471-494, doi:10.1016/S0005-7894(04)80028-5.
- Chattoo, S., & Ahmad, W. I. U. (2008). The moral economy of selfhood and caring: Negotiating boundaries of personal care as embodied moral practice. *Sociology of Health and Illness, 30*(4), 550-564, doi:10.1111/j.1467-9566.2007.01072.x.
- Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology, 63*(9), 871-890, doi:10.1002/jclp.20400.
- Choi, K., Vickers, K., & Tassone, A. (2014). Trait Emotional Intelligence, Anxiety Sensitivity, and Experiential Avoidance in Stress Reactivity and Their Improvement Through Psychological Methods. *Europe's Journal of Psychology, 10*(2), 376-404, doi:10.5964/ejop.v10i2.754.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale: Lawrence Erlbaum.
- Cohen, J., & Miller, L. (2009). Interpersonal mindfulness training for well-being: A pilot study with psychology graduate students. *Teachers College Record, 111*(12), 2760-2774.
- Coon, D. W., Keaveny, M., Valverde, I. R., Dadvar, S., & Gallagher-Thompson, D. (2012). Evidence-based psychological treatments for distress in family caregivers of older adults. In F. Scogin, A. Shah, F. Scogin, & A. Shah (Eds.), *Making Evidence-based Psychological Treatments work with Older Adults*. (pp. 225-284). Washington, DC, US: American Psychological Association.
- Cristea, I. A., Montgomery, G. H., Szamoskozi, Ş., & David, D. (2013). Key Constructs in “Classical” and “New Wave” Cognitive Behavioral Psychotherapies: Relationships Among Each Other and With Emotional Distress. *Journal of Clinical Psychology, 69*(6), 584-599, doi:10.1002/jclp.21976.
- Dahl, J. A., Stewart, I., Martell, C., Kaplan, J. S., & Walser, R. D. (2014). *ACT and RFT in Relationships: Helping Clients Deepen Intimacy and Maintain Healthy Commitments Using Acceptance and Commitment Therapy and Relational Frame Theory*. Oakland CA: Context Press/New Harbinger Publications.
- Davis, D., & Hayes, J. (2011). What are the benefits of mindfulness? A practice review of psychotherapy-related research. *Psychotherapy, 48*(2), 198-208, doi:10.1037/a0022062.
- Davis, E., Deane, F., & Lyons, G. (2015). Acceptance and valued living as critical appraisal and coping strengths for caregivers dealing with terminal illness and bereavement. *Palliative and Supportive Care, 13*(2), 359-368, doi:10.1017/S1478951514000431.
- Deane, F. P., Marshall, S., Crowe, T., White, A., & Kavanagh, D. (2015). A Randomized Controlled Trial of a Correspondence-Based Intervention for Carers of Relatives with Psychosis. *Clinical Psychology & Psychotherapy, 22*(2), 142-152, doi:10.1002/cpp.1880.
- Devereux, J., Hastings, R., & Noone, S. (2009). Staff stress and burnout in intellectual disability services: Work stress theory and its application. *Journal of Applied Research in Intellectual Disabilities, 22*(6), 561-573, doi:10.1111/j.1468-3148.2009.00509.x.
- Dickinson, C., Dow, J., Gibson, G., Hayes, L., Robalino, S., & Robinson, L. (2016). Psychosocial intervention for carers of people with dementia: What components are most effective and when? A systematic review of systematic reviews. *International Psychogeriatrics, 29*(1), 31-43, doi:10.1017/S1041610216001447.

- Donald, J. N., Atkins, P. W. B., Parker, P. D., Guo, J., & Christie, A. M. (2017). Cognitive Defusion Predicts More Approach and Less Avoidance Coping With Stress, Independent of Threat and Self-Efficacy Appraisals. *Journal of Personality, 85*(5), 716-729, doi:10.1111/jopy.12279.
- Done, D. J., & Thomas, J. A. (2001). Training in communication skills for informal carers of people suffering from dementia: a cluster randomized clinical trial comparing a therapist led workshop and a booklet. *International Journal of Geriatric Psychiatry, 16*(8), 816-821, doi: 10.1002/gps.436.
- Douglas, A. N., Binder, K. S., Kajos, J. H., Hyde, J., & Li, Y. (2013). Reading Relationships, But Seeing Betrayal: Impact of Relational Health Schemas on Processing of Interpersonal Conflict. *Journal of Social & Clinical Psychology, 32*(9), 964-988, doi:10.1521/jscp.2013.32.9.964.
- Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology, 75*(2), 545-560, doi:10.1037/0022-3514.75.2.545.
- Duncan, B. L., Miller, S. D., Sparks, J., Claud, D., Reynolds, L., Brown, J., & Johnson, L. (2003). The Session Rating Scale: Preliminary psychometric properties of a “working” alliance measure. *Journal of Brief Therapy, 3*(1), 3-12.
- Eifert, G. H., & Heffner, M. (2003). The effects of acceptance versus control contexts on avoidance of panic-related symptoms. *Journal of Behavior Therapy and Experimental Psychiatry, 34*(3-4), 293-312, doi:10.1016/j.jbtep.2003.11.001.
- Fletcher, L., & Hayes, S. C. (2005). Relational frame theory, acceptance and commitment therapy, and a functional analytic definition of mindfulness. *Journal of Rational - Emotive and Cognitive - Behavior Therapy, 23*(4), 315-336, doi:10.1007/s10942-005-0017-7.
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., Suzuki, N., & Watson, D. (2014). The brief experiential avoidance questionnaire: Development and initial validation. *Psychological Assessment, 26*(1), 35-45, doi:10.1037/a0034473.
- Gerhart, J. I., Baker, C. N., Hoerger, M., & Ronan, G. F. (2014). Experiential avoidance and interpersonal problems: A moderated mediation model. *Journal of Contextual Behavioral Science, 3*(4), 291-298, doi:10.1016/j.jcbs.2014.08.003.
- Gray, B., Seddon, D., Robinson, C. A., & Roberts, A. (2009). An emotive subject: insights from social, voluntary and healthcare professionals into the feelings of family carers for people with mental health problems. *Health and Social Care in the Community, 17*(2), 125-132, doi:10.1111/j.1365-2524.2008.00803.x.
- Harris, R. (2010). *ACT with Love: Stop Struggling, Reconcile Differences, and Strengthen Your Relationship with Acceptance and Commitment Therapy*. Oakland, CA, United States: New Harbinger Publications.
- Hayes, S. (2004). Acceptance and Commitment Therapy and the New Behavior Therapies: Mindfulness, Acceptance, and Relationship. In *Mindfulness and Acceptance: Expanding the Cognitive-behavioral Tradition*. New York: Guilford Press.
- Hayes, S., Luoma, J., Bond, F., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1-25, doi:10.1016/j.brat.2005.06.006.
- Hayes, S., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: An Experiential Approach to Behavior Change*. New York: Guilford Press.
- Hayes, S., Wilson, K., Gifford, E., Follette, V., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and

- treatment. *Journal of Consulting and Clinical Psychology*, 64(6), 1152-1168, doi:10.1002/jclp.20400.
- Henderson, J. (2001). 'He's not my carer—he's my husband': personal and policy constructions of care in mental health. *Journal of Social Work Practice*, 15(2), 149-159, doi:10.1080/02650530120090601.
- Holtforth, M. G. (2008). Avoidance motivation in psychological problems and psychotherapy. *Psychotherapy Research: Journal Of The Society For Psychotherapy Research*, 18(2), 147-159, doi:10.1080/10503300701765849.
- Holtforth, M. G., Bents, H., Mauler, B., & Grawe, K. (2006). Interpersonal distress as a mediator between avoidance goals and goal satisfaction in psychotherapy inpatients. *Clinical Psychology & Psychotherapy*, 13(3), 172-182, doi:10.1002/cpp.486.
- Horowitz, L. (1979). On the cognitive structure of interpersonal problems treated in psychotherapy. *Journal of Consulting and Clinical Psychology*, 47(1), 5-15, doi:10.1037/0022-006X.47.1.5.
- Horowitz, L., Alden, L., Wiggins, J., & Pincus, A. (2000). *IIP, Inventory of Interpersonal Problems Manual*. San Antonio, TX: The Psychological Corporation.
- Horowitz, L., Rosenberg, S., Baer, B., Ureno, G., & Villasenor, V. (1988). Inventory of Interpersonal Problems: Psychometric Properties and Clinical Applications. *Journal of Consulting and Clinical Psychology*, 56(6), 885-892, doi:10.1037/0022-006X.56.6.885.
- Horowitz, L., Rosenberg, S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy. *Journal of Consulting and Clinical Psychology*, 61(4), 549-560, doi:10.1037/0022-006X.61.4.549.
- Horowitz, L., Wilson, T., Zolotsev, P., Constantino, M., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model. *Personality & Social Psychology Review*, 10(1), 67-86, doi:10.1207/s15327957pspr1001\_4.
- Hurley, R. V. C., Patterson, T. G., & Cooley, S. J. (2014). Meditation-based interventions for family caregivers of people with dementia: a review of the empirical literature. *Aging and Mental Health*, 18(3), 281-288, doi:10.1080/13607863.2013.837145.
- Inge, B. (1992). The Origins of Attachment Theory: John Bowlby and Mary Ainsworth. *Developmental Psychology*, 28(5), 759-775, doi:10.1037/0012-1649.28.5.759.
- Kopta, S. M. (2003). The dose-effect relationship in psychotherapy: a defining achievement for Dr. Kenneth Howard. *Journal of Clinical Psychology*, 59(7), 727-733, doi:10.1002/jclp.10167.
- Lawn, S., & McMahan, J. (2014). The importance of relationship in understanding the experiences of spouse mental health carers. *Qualitative Health Research*, 24(2), 254-266, doi:10.1177/1049732313520078.
- Leary, T. (1957). *Interpersonal Diagnosis of Personality: A Functional Theory and Methodology for Personality Evaluation*. New York: Ronald Press.
- Leoni, M., Corti, S., Cavagnola, R., Healy, O., & Noone, S. J. (2016). How acceptance and commitment therapy changed the perspective on support provision for staff working with intellectual disability. *Advances in Mental Health and Intellectual Disabilities*(1), 59-73, doi:10.1108/AMHID-09-2015-0046.
- Lev, A. (2011). *A new group therapy protocol combining acceptance and commitment therapy (ACT) and Schema Therapy in the treatment of interpersonal disorders: A randomized controlled trial*. PhD (Doctor of Philosophy) thesis, Wright Institute, Berkeley, CA.

- Levitt, J. T., Brown, T. A., Orsillo, S. M., & Barlow, D. H. (2004). The Effects of Acceptance Versus Suppression of Emotion on Subjective and Psychophysiological Response to Carbon Dioxide Challenge in Patients With Panic Disorder. *Behavior Therapy, 35*(4), 747-766, doi:10.1016/S0005-7894(04)80018-2.
- Li, G., Yuan, H., & Zhang, W. (2016). The effects of mindfulness-based stress reduction for family caregivers: Systematic review. *Archives of Psychiatric Nursing, 30*(2), 292-299, doi:10.1016/j.apnu.2015.08.014.
- Lillis, J., Levin, M. E., & Hayes, S. C. (2011). Exploring the relationship between body mass index and health-related quality of life: A pilot study of the impact of weight self-stigma and experiential avoidance. *Journal of Health Psychology, 16*(5), 722-727, doi:10.1177/1359105310388321.
- Lindstrom, K. B., & Melnyk, B. M. (2013). Feasibility and preliminary effects of an intervention targeting schema development for caregivers of newly admitted hospice patients. *Journal of Palliative Medicine, 16*(6), 680-685, doi:10.1089/jpm.2012.0198.
- Losada, A., Márquez-González, M., Romero-Moreno, R., & López, J. (2014). Development and validation of the Experiential Avoidance in Caregiving Questionnaire (EACQ). *Aging and Mental Health, 18*(7), 897-904, doi:10.1080/13607863.2014.896868.
- Losada, A., Márquez-González, M., Romero-Moreno, R., López, J., Fernández-Fernández, V., & Nogales-González, C. (2015). Attending to dementia caregivers diverse needs: Contributions from cognitive behavioral therapy and acceptance and commitment therapy. *Clínica y Salud, 26*(1), 41-48, doi:10.1016/j.clysa.2015.02.001.
- Mandavia, A., Masuda, A., Moore, M., Mendoza, H., Donati, M. R., & Cohen, L. L. (2015). Empirical Research: The application of a cognitive defusion technique to negative body image thoughts: A preliminary analogue investigation. *Journal of Contextual Behavioral Science, 4*, 86-95, doi:10.1016/j.jcbs.2015.02.003.
- Manne, S. L., Ostroff, J. S., Norton, T. R., Fox, K., Goldstein, L., & Grana, G. (2006). Cancer-related relationship communication in couples coping with early stage breast cancer. *Psycho-Oncology, 15*(3), 234-247, doi:10.1002/pon.941.
- Masuda, A., Twohig, M. P., Stormo, A. R., Feinstein, A. B., Chou, Y.-Y., & Wendell, J. W. (2010). The effects of cognitive defusion and thought distraction on emotional discomfort and believability of negative self-referential thoughts. *Journal of Behavior Therapy and Experimental Psychiatry, 41*, 11-17, doi:10.1016/j.jbtep.2009.08.006.
- McConachie, D. A. J., McKenzie, K., Morris, P. G., & Walley, R. M. (2014). Acceptance and mindfulness-based stress management for support staff caring for individuals with intellectual disabilities. *Research in Developmental Disabilities, 35*(6), 1216-1227, doi:10.1016/j.ridd.2014.03.005.
- McKay, M., Lev, A., & Skeen, M. (2012). *Acceptance and Commitment Therapy for Interpersonal Problems: Using Mindfulness, Acceptance, and Schema Awareness to Change Interpersonal Behaviors*: New Harbinger Publications.
- Miller, S. D., Duncan, B. L., Brown, J., Sparks, J., & Claud, D. (2003). The Outcome Rating Scale: A preliminary study of the reliability, validity, and feasibility of a brief visual analog measure. *Journal of Brief Therapy, 2*, 91-100.
- Millstein, D. J., Orsillo, S. M., Hayes-Skelton, S. A., & Roemer, L. (2015). Interpersonal Problems, Mindfulness, and Therapy Outcome in an Acceptance-Based Behavior Therapy for Generalized Anxiety Disorder. *Cognitive Behaviour Therapy, 44*(6), 491-501, doi:10.1080/16506073.2015.1060255.
- Moore, T., & McArthur, M. (2007). We're all in it together: supporting young carers and their families in Australia. *Health & Social Care in the Community, 15*(6), 561-568, doi:10.1111/j.1365-2524.2007.00719.x.

- Noone, S., & Hastings, R. (2010). Using Acceptance and Mindfulness-Based Workshops with Support Staff Caring for Adults with Intellectual Disabilities. *Mindfulness, 1*(2), 67-73, doi:10.1007/s12671-010-0007-4.
- Noone, S., & Hastings, R. (2011). Values and Psychological Acceptance as Correlates of Burnout in Support Staff Working With Adults With Intellectual Disabilities. *Journal of Mental Health Research in Intellectual Disabilities, 4*(2), 79-89, doi:10.1080/19315864.2011.582230.
- Oyebode, J. (2003). Assessment of carers' psychological needs. *Advances in Psychiatric Treatment, 9*(1), 45-53, doi:10.1192/apt.9.1.45.
- Pinquart, M., & Sörensen, S. (2006). Helping caregivers of persons with dementia: Which interventions work and how large are their effects? *International Psychogeriatrics, 18*(4), 577-595, doi:10.1017/S1041610206003462.
- Rayan, A., & Ahmad, M. (2017). Mindfulness and parenting distress among parents of children with disabilities: A literature review. *Perspectives in Psychiatric Care, 1*, 1-7, doi:10.1111/ppc.12217.
- Renner, F., Jarrett, R. B., Vittengl, J. R., Barrett, M. S., Clark, L. A., & Thase, M. E. (2012). Interpersonal problems as predictors of therapeutic alliance and symptom improvement in cognitive therapy for depression. *Journal of Affective Disorders, 138*(3), 458-467, doi:10.1016/j.jad.2011.12.044.
- Sadath, A., Muralidhar, D., Varambally, S., & Gangadhar, B. N. (2017). Does group intervention have benefits on expressed emotion and social support in carers of persons with first episode psychosis? *Social Work in Mental Health, 1*-14, doi:10.1080/15332985.2016.1252826.
- Sadler, E., & McKeivitt, C. (2013). 'Expert carers': An emergent normative model of the caregiver. *Social Theory & Health, 11*(1), 40-58, doi:http://dx.doi.org/10.1057/sth.2012.17.
- Salzer, S., Pincus, A. L., Hoyer, J., Kreische, R., Leichsenring, F., & Leibing, E. (2008). Interpersonal Subtypes Within Generalized Anxiety Disorder. *Journal of Personality Assessment, 90*(3), 292-299, doi:10.1080/00223890701885076.
- Salzer, S., Winkelbach, C., Leibing, E., Pincus, A. L., & Leichsenring, F. (2011). Interpersonal subtypes and change of interpersonal problems in the treatment of patients with generalized anxiety disorder: A pilot study. *Psychotherapy, 48*(3), 304-310, doi:10.1037/a0022013.
- Savage, S. (2002). *An overview of the literature on sustaining caring relationships*. Australian Capitol Territory: Deakin University and Department of Human Services.
- Scott, J. L., Dawkins, S., Quinn, M. G., Sanderson, K., Elliott, K. J., Stirling, C ... Robinson, A. (2016). Caring for the carer: A systematic review of pure technology-based cognitive behavioral therapy (TB-CBT) interventions for dementia carers. *Aging and Mental Health, 20*(8), 793-803, doi:10.1080/13607863.2015.1040724.
- Spector, A., Charlesworth, G., Orrell, M., & Marston, L. (2016). Factors influencing the person-carer relationship in people with anxiety and dementia. *Aging and Mental Health, 20*(10), 1055-1062, doi:10.1080/13607863.2015.1063104.
- Spruytte, N., Van Audenhove, C., & Lammertyn, F. (2001). Predictors of institutionalization of cognitively-impaired elderly cared for by their relatives. *International Journal of Geriatric Psychiatry, 16*(12), 1119-1128, doi:10/1002/gps.484.
- Stulz, N., Lutz, W., Kopta, S. M., Minami, T., & Saunders, S. M. (2013). Dose-effect relationship in routine outpatient psychotherapy: Does treatment duration matter? *Journal of Counseling Psychology, 60*(4), 593-600, doi:10.1037/a0033589.10.1037/a0033589.supp
- Sullivan, H. S. (1953). *The Interpersonal Theory of Psychiatry*. New York: Norton.

- Thimm, J. C. (2013). Early maladaptive schemas and interpersonal problems: A circumplex analysis of the YSQ-SF. *International Journal of Psychology & Psychological Therapy, 13*(1), 113-124.
- Ulstein, I., Wyller, T. B., & Engedal, K. (2008). Correlates of intrusion and avoidance as stress response symptoms in family carers of patients suffering from dementia. *International Journal of Geriatric Psychiatry, 23*(10), 1051-1057, doi:10.1002/gps.2032.
- Wadham, O., Simpson, J., Rust, J., & Murray, C. (2016). Couples' shared experiences of dementia: A meta-synthesis of the impact upon relationships and couplehood. *Ageing and Mental Health, 20*(5), 463-473, doi:10.1080/13607863.2015.1023769.
- Weinrib, A. Z. (2011). *Investigating experiential avoidance as a mechanism of action in a mindfulness intervention*. PhD (Doctor of Philosophy) thesis, University of Iowa.
- Wilkinson, C., & McAndrew, S. (2008). 'I'm not an outsider, I'm his mother!' A phenomenological enquiry into carer experiences of exclusion from acute psychiatric settings. *International Journal of Mental Health Nursing, 17*(6), 392-401, doi:10.1111/j.1447-0349.2008.00574.x.
- Williams, J. C., & Lynn, S. J. (2010). Acceptance: An historical and conceptual review. *Imagination, Cognition and Personality, 30*(1), 5-56, doi:10.2190/IC.30.1.c.
- Yesufu-Udechuku, A., Harrison, B., Mayo-Wilson, E., Young, N., Woodhams, P., Shiers, D ... Kendall, T. (2015). Interventions to improve the experience of caring for people with severe mental illness: Systematic review and meta-analysis. *British Journal of Psychiatry, 206*(4), 268-274, doi:10.1192/bjp.bp.114.147561.
- Young, J., Klosko, J., & Weishaar, M. (2006). *Schema Therapy: A Practitioner's Guide*: Guilford Publications.
- Young, T. J., Manthorp, C., Howells, D., & Tullo, E. (2011). Developing a carer communication intervention to support personhood and quality of life in dementia. *Ageing and Society, 31*, 1003-1025, doi:10.1017/S0144686X10001182

## **Appendix T: Intake Procedure for MMR program**

### **Me and My Relationships**

**Coded ID:** \_\_\_\_\_

**Date of assessment:** \_\_\_\_\_

**Assessed by:** \_\_\_\_\_

**Time taken for assessment:** \_\_\_\_\_



## GENERAL NOTES

This interview includes questions about you, your experiences in your relationships, your emotions and your mental health. The information we discuss will help us think about what you might like to work on during the program, whether the program is likely to be able to help you with this, and how we can support you if you decide to participate in the program.

*Explore:*

- *Reason for interest in the program,*
- *presenting concerns, concerns about how you feel in your relationships or how you interact with other people*
- *key relationships*
- *problematic relationships in life*
- *supports*
- *What's one thing you would want to change about those relationships or about how you are in your relationships?*

## CHECK-IN

We are also checking in with everyone about other aspects of their lives, such as their experience of mental health problems. By having a better understanding of you and your situation I will be better able to understand your experience, assist you during this program, and perhaps do things differently in the group or individual sessions to help you get the most from it.

In this section I'm going to ask about a range of difficulties people may experience. These may or may not be things that you've experienced.

- In the last six months have you experienced any significant stressors or life events such as loss of a job, a car accident, illness, illness in the family, witnessing a crime, being assaulted, the death of someone you know, or a relationship breakdown.

### **In the past month has there been a period of time in which you've experienced:**

- Depression; feeling sad, low or hopeless; loss of interest and motivation; feeling guilty; crying
- Anxiety, tension, unreasonable worry or stress, unable to relax
- Difficulties getting to sleep or staying asleep
- Trouble understanding things that you read or things that people are saying
- Trouble concentrating
- Difficulty with your memory
- Trouble controlling anger, rage, or violent behaviour
- Times where you/others were concerned about your use of drugs or alcohol. (Specify: \_\_\_\_\_)
  - you weren't able to stop drinking/using when you wanted to
  - you thought you should cut down,
  - you felt bad or guilty about your use,
  - others were critical of your use,
  - you used more often or in larger amounts than you used to in order to feel the same effect
  - you felt sick (experienced withdrawal symptoms) when you stopped drinking/using or cut down your use
  - you neglected your responsibilities, family or friends because of your use of alcohol or drugs
- Times where you/others thought you spent more money on gambling than you should?
- Times where you/others thought you have weighed less or more, than you should? LESS / MORE
- Hallucinations: heard voices no one else could hear or seen things that others could not see?
- Thoughts of harming yourself or killing yourself – frequency, recency, intensity, intent, plan, actions
- Self-harm or suicide attempts
- Thoughts of harming someone else
- Protective factors

**Thinking over the list we just discussed, have there been times in the past when these difficulties were occurring for you? If so which ones? (explore).**

## Program suitability

**A note on general exclusion criteria:**

Exclusion criteria relate to:

- 1) the ability of this program to adequately meet the person’s current needs;  
**Will their needs be met? Y / N**  
**Does the person have more pressing needs that should be met first? Y / N**  
 (i.e. crisis, suicide risk, active addiction in past month).
- 2) the predicted impact of this program on the person’s wellbeing;  
**Is the program likely to have a positive impact on them? Y / N**
- 3) the potential of the person to benefit from the program.  
**Will they benefit? Y / N**

\* Where the answer is **N** on any of the above questions, discuss suitability points with the individual (e.g. “this may not be the best time for you to proceed with this program...”), and offer to re-assess at the next intake for ‘Me and My Relationships’; provide advice and contact numbers of alternative services that may assist the client and better suit the client’s current needs.

**Exclusion criteria:**

	<u>Y</u>	<u>N</u>
<b>Factors to consider regarding the suitability of the group program include:</b>		
• Acute crisis.....	<input type="checkbox"/>	<input type="checkbox"/>
• Moderate to high suicide risk.....	<input type="checkbox"/>	<input type="checkbox"/>
• Mental health or cognitive difficulties that would significantly impact upon the person’s ability to engage successfully with the group and group content.....	<input type="checkbox"/>	<input type="checkbox"/>
• Client’s goals or areas of concern are incompatible with the goals of the group program.....	<input type="checkbox"/>	<input type="checkbox"/>
• The client does not recognise presence of interpersonal problems. Client demonstrates no insight and no ability to develop insight regarding interpersonal problems.....	<input type="checkbox"/>	<input type="checkbox"/>
• Can the client commit to reliably attend the full twelve weeks of the program.....	<input type="checkbox"/>	<input type="checkbox"/>

\* Where it is decided that ***the group is not adequately suited to the client and the client’s needs***, consider offering to provide the program on an individual basis

## Appendix U: Mindfulness Awareness Attention Scale

(MAAS: Brown & Ryan, 2003)

### Day-to-Day Experiences

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

I could be experiencing some emotion and not be conscious of it until some time later.	1	2	3	4	5	6
I break or spill things because of carelessness, not paying attention, or thinking of something else.	1	2	3	4	5	6
I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5	6
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1	2	3	4	5	6
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1	2	3	4	5	6
I forget a person's name almost as soon as I've been told it for the first time.	1	2	3	4	5	6
It seems I am "running on automatic," without much awareness of what I'm doing.	1	2	3	4	5	6
I rush through activities without being really attentive to them.	1	2	3	4	5	6
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1	2	3	4	5	6
I do jobs or tasks automatically, without being aware of what I'm doing.	1	2	3	4	5	6
I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5	6
I drive places on 'automatic pilot' and then wonder why I went there.	1	2	3	4	5	6
I find myself preoccupied with the future or the past.	1	2	3	4	5	6
I find myself doing things without paying attention.	1	2	3	4	5	6
I snack without being aware that I'm eating.	1	2	3	4	5	6

## Appendix V: Outcome Rating Scale (ORS)

ID# \_\_\_\_\_ Session # \_\_\_\_\_ Date: \_\_\_\_\_  
Clinician \_\_\_\_\_

---

Looking back over the last week, including today, help us understand how you have been feeling by rating how well you have been doing in the following areas of your life, where marks to the left represent low levels and marks to the right indicate high levels.

---

### **Individually** (Personal well-being)

I-----I

### **Interpersonally** (Family, close relationships)

I-----I

### **Socially** (Work, school, friendships)

I-----I

### **Overall** (General sense of well-being)

I-----I

## Appendix W: Session Rating Scale (SRS)

Name _____
Session # ____ Date: _____

---

---

Please rate today's group by placing a mark on the line nearest to the description that best fits your experience.

---

---

### Relationship

I did not feel understood, respected, and/or accepted by the leader and/or the group.

I-----I

I felt understood, respected, and accepted by the leader and the group.

### Goals and Topics

We did *not* work on or talk about what I wanted to work on and talk about.

I-----I

We worked on and talked about what I wanted to work on and talk about.

### Approach or Method

The leader and/or the group's approach are/is not a good fit for me.

I-----I

The leader and the group's approach are a good fit for me.

### Overall

There was something missing in group today—I did not feel like a part of the group.

I-----I

Overall, today's group was right for me—I felt like a part of the group.

© 2007, Barry L. Duncan and Scott D. Miller

## Appendix X: Email Invitation to Focus Groups

Dear Sir/Madam,

I am writing to invite you to participate in a focus group on the effectiveness of the *Me and My Relationships* program. The study is being conducted by researchers at the University of Wollongong as part of my PhD.

We are looking for carers who have previously completed *Me and My Relationships* to engage in a focus group. We anticipate that the focus group will take an hour of your time. It is hoped that this research will contribute to current understandings of carer's experiences in their relationships and the improvement of programs such as *Me and My Relationships*.

Attached is the participant information sheet regarding this research, which I encourage you to read for further details on the focus group and what it entails. If you are interested in participating, please contact me using the details supplied.

Thanks and kind regards,

Elly Bailey

## Appendix Y: Consent Form and Participant Information Sheet for Focus Groups



### CONSENT FORM FOR FOCUS GROUP

Research Title: *Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems*

Researchers: Trevor Crowe & Elly Bailey

I have been given information about *Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems* and discussed the research project with Trevor Crowe and Elly Bailey, who are conducting this research. I have been advised of the potential risks and burdens associated with this research, and have had an opportunity to ask the researchers any questions I may have about the research and my participation.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research at any time. I understand that my refusal to participate or withdrawal of consent will not affect my relationship with the program provider or the University of Wollongong.

If I have any enquiries about the research, I can contact Trevor Crowe (4221 3147) and/or Elly Bailey (4221 4207). If I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on 4221 3386 or email [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au).

By signing below I am indicating my consent to participate in a focus group and for the content of this focus group audio-recorded. I understand that the audio-recording is for the purposes of transcribing only and following this the original recording will be deleted.

I understand that the data collected from my participation will be used for reports about the development and evaluation of this program that may be published in research journals and used in a PhD thesis, and I consent for it to be used in that manner.

Name

.....

Date

...../...../.....

Signature

.....



## PARTICIPANT INFORMATION SHEET FOR FOCUS GROUP

**Title:** *Evaluation of the Effectiveness of Individual- and Group- Delivery of an Acceptance and Commitment Therapy Program for Interpersonal Problems*

### **Purpose of the Research**

This is an invitation to participate in a study conducted by researchers at the University of Wollongong. The purpose of this research is to explore carers' experiences of interpersonal problems as well as evaluate the effectiveness of the *Me and My Relationships Program*.

### **Investigators**

Dr Trevor Crowe  
*Clinical Supervisor*  
*Faculty of Psychology*  
4221 3147  
tcrowe@uow.edu.au

Miss Elly Bailey  
*PhD Candidate &*  
*Research Assistant*  
4221 4207  
elly@uow.edu.au

### **Why have I been invited to participate in this study?**

You are invited to participate in this study because approximately three months ago you completed the *Me and My Relationships* program.

### **What does this study involve?**

If you agree to participate in this study, you will be asked to sign the attached Consent Form. You will be involved in a focus group that will be held at ARAFMI Illawarra, at a time that is most suitable for the participants. It is anticipated that the focus group will run for approximately one hour. If you would prefer to participate in a one-on-one interview instead of the focus group, please advise Elly Bailey and this will be organised.

The sessions will be run by Elly Bailey and an audio-recording device will also be used during the focus group. You will be asked questions about your interpersonal problems & experiences in relationships, and the coping styles you use within these relationships. You will also be asked questions regarding the effectiveness of the MMR program in addressing your relational problems. Your willingness to answer these questions is voluntary, and you can choose not to answer particular questions.

### **Are there risks to me in taking part in this study?**

There are no risks anticipated for anyone who chooses to take part in this study. However, if in the unlikely circumstance you were to experience distress as a result of the focus group, then the researchers will support you with arranging an appropriate referral.

### **Will I benefit from the study?**

Participating in this study has the benefit of adding to the knowledge base regarding carers' experiences of interpersonal problems. It will also allow for the evaluation & improvement of the *Me and My Relationships* program, and ultimately services provided for carers.

**How is this study being paid for?**

This study is not currently funded.

**Will taking part in this study cost me anything, and will I be paid?**

Participation in this study will not cost you anything, nor will you be paid.

**What if I don't want to take part in this study?**

Participation in this study is voluntary. It is completely up to you whether or not you participate. Your decision not to participate is respected and will not in any way affect your current or future relationship with the University of Wollongong

**What if I participate and want to withdraw later?**

You are free to withdraw from the study anytime without consequence. Note however, since data will be collected and stored in de-identified form, any data that you have provided will not be able to be withdrawn.

**How will my confidentiality be protected?**

At the beginning of the interview session the Investigator will ask participants to respect the confidentiality of the group, however the maintenance of confidence by other group members cannot be guaranteed. Any information or comments provided by you at the focus group will be collected in de-identified form. The audio- recordings and paper data will be stored in a locked filing cabinet in The Illawarra Institute for Mental Health, University of Wollongong. After completion of the study, audio-files will be deleted and the paper data will be stored for 5 years in the locked filing cabinet in The Illawarra Institute for Mental Health and then shredded.

**What happens with the results?**

Findings from this research will be included in reports about carers interpersonal problems, and the development and evaluation of this program. These reports may be published in research journals and included in a PhD thesis. Confidentiality is assured and you will not be identified in any part of the research.

**What should I do if I want to discuss this study further before I decide?**

If you would like to know more about the study at any stage, please do not hesitate to contact Elly Bailey using the contact details above.

**Who should I contact if I have concerns about the conduct of this study?**

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UoW Ethics Officer on (02) 4221 3386 or email [rso-ethics@uow.edu.au](mailto:rso-ethics@uow.edu.au).

**Thank you for taking the time to consider this study.**