

Measuring and Understanding Child-to-Parent Abuse in Australia

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Abstract

Child-to-parent abuse (CPA) is one of the least studied forms of family violence. CPA research has been hindered by a diffuse body of literature, measurement that neglects to account for the interaction between severity and frequency of children's behaviour, poor differentiation between aggressive and abusive behaviour, and very limited integration of existing findings into multi-factor theoretical frameworks. This thesis sought to address these weaknesses in the literature by addressing two research aims: (1) to improve measurement of CPA; (2) to advance understanding of individual and familial factors related to CPA. The thesis is presented in the form of four associated papers and an integrated discussion.

The first Thesis Paper provides a comprehensive review of CPA literature. This review expands and interprets findings of existing CPA research within the context of differing sample characteristics, and draws on existing aggression and family violence theories to contextualise findings. The review highlights that there has been relatively limited investigation into individual and interpersonal psychological factors, relationship dynamics, or situational antecedents associated with CPA. This paper proposes a range of research questions that could address the gaps in knowledge and advance understanding of CPA.

The second and third Thesis Papers seek to improve approaches to measurement of CPA. In the second paper, the newly designed Beliefs About Child-to-Parent Abuse Questionnaire (BACPAQ) is used to assess social norms surrounding CPA and understand how often individual behaviours have to occur over 12 months to be considered by respondents as abusive. The BACPAQ is used to inform the development and scoring of the Abusive Behaviour by Children- Indices (ABC-I) in the third paper. The ABC-I measures the presence of abuse considering both the frequency and severity of a wide range of child-to-parent behaviours. The ABC-I was

developed with parents of children 14-25 years ($N = 201$) and validated with children aged 14-25 years ($N = 587$). The ABC-I includes nine questions, divided into three sub-incides, with an empirically derived threshold for abuse based on the total score. The ABC-I effectively discriminated between parents who described their child as abusive and those who did not and demonstrated moderate convergent validity with the Child-to-Parent Abuse Questionnaire, the most commonly used existing CPA measure.

The fourth Thesis Paper used the ABC-I to address research questions posed in Thesis Paper 1 by investigating individual and familial risk factors for CPA perpetration among 18 to 25-year olds ($N = 435$). The General Aggression Model and I³ theory, two complementary theories of aggressive behaviour, were used to generate hypotheses. Contrary to past research, mothers and fathers were equally likely have been abused in this sample, while sons were more likely to be abusive towards a parent than daughters. The results highlight the necessity of gender sensitive research as psychological and familial predictor variables explained a greater proportion of the variance in CPA against fathers (35%) than mothers (17%).

This thesis advances CPA research by developing the ABC-I, a culturally-relevant tool that considers both the severity and frequency the behaviours in determining whether a pattern of behaviour constitutes abuse according to Australian parents' social norms. By differentiating normative, but disrespectful, from abusive behaviours, the thesis is able to describe CPA risk factors that are linked specifically to abuse rather than aggression more generally. The integrated discussion then connects the findings of these specific studies to existing CPA literature and more broadly to well-established aggression literatures and theories. Finally, the limitations of the research and future directions for CPA are described.

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Who Abuse Their Parents

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			Submission		
Chapter	Co-Authors	Journal	date	Accepted	Status
Sixty years of child-to-parent abuse research: What do we know and where do we go					
2	Melanie Simmons (candidate) Dr Troy E. McEwan A/Prof. Rosemary Purcell Prof. James R.P. Ogloff	<i>Aggression and Violent Behaviour</i>	26/04/2016	10/11/2018	Published
“But all kids yell at their parents, don’t they?” Social norms about child-to-parent abuse in Australia					
3	Melanie Simmons (candidate) A/Prof. Rosemary Purcell Dr Troy E. McEwan	<i>Journal of Family Studies</i>	7/11/2017	N/A	Submitted
Developing the Abusive Behaviour by Children- Indices (ABC-I) to discriminate normative from abusive behaviour					
4	Melanie Simmons (candidate) Dr Troy E. McEwan A/Prof. Rosemary Purcell Dr Minh Huynh	<i>Journal of Interpersona l Violence</i>	7/11/2017	N/A	Submitted
A Social Cognitive Investigation of Young Adults Who Abuse Their Parents					
5	Melanie Simmons (candidate) Dr Troy E. McEwan A/Prof. Rosemary Purcell Dr Minh Huynh	<i>Journal of Youth and Adolescence</i>	7/11/2017	N/A	Submitted

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List of Acronyms

Alphabetical list of acronyms used in text including first appearance (page number).

Acronyms used in tables can be found in respective table notes.

Abused Parent Questionnaire (APQ), 118
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Child-to-Parent Abuse (CPA) has been defined to include a constellation of behaviours (e.g., physical, emotional, psychological, and financial), that occur repeatedly over time (Holt, 2013) with the intention of causing harm (Edenborough, 2007), and gaining power and control (Cottrell, 2001; Edenborough, 2007; Holt, 2013; Tew & Nixon, 2010). It is difficult to judge the prevalence of CPA within the community, as estimates range from 3% (Agnew & Huguley, 1989) to over 90% (e.g., Rico, Rosado & Cantón-Cortés, 2017) depending on the behaviours being measured. However, police statistics from the United States highlight that CPA is a relatively common social problem, accounting for half of all reports of family violence perpetrated by juveniles (Snyder & McCurley, 2008). Further, 78% of intervention orders (i.e., restraining orders) against juveniles in Victoria, Australia, listed parents as the victims (Purcell, Baksheev & Mullen, 2014). Despite its apparent prevalence, relatively little is known about CPA compared to other forms of family violence.

Over the past sixty years, the field of CPA has struggled to advance beyond exploratory research. This thesis contends that the field of CPA has been hindered by two issues: (1) there has been limited consideration of the interaction between the frequency of a behaviour and its severity in determining the threshold between normative child-to-parent conflict and abuse; and (2) the body of literature has developed through incidental research, rather than purposeful hypothesis testing, resulting in a diffuse body of research and poor understanding of risk factors for CPA.

1.1 Research Aims

This thesis sought to address gaps in the CPA literature by: (1) improving measurement of CPA; and (2) advancing understanding of individual and familial factors related to CPA. This thesis is presented in the form of four associated papers, each described further below in order to summarise and explain how they are related to the overarching aims of the thesis.

1.2 Research Aim 1: Improve Measurement of Child-To-Parent Abuse

Capturing the complexities and nuances of abuse in a quantitative manner is difficult, regardless of the relationship in which the abuse occurs, because the general concept of abuse is socially constructed. That is to say, how abuse is defined and understood varies according to how the social group that it occurs within perceives the behaviour. For example, a study of how child abuse and maltreatment was defined in 73 countries found that, while there was general consistency in defining sexual and physical abusive behaviours, there was great variation between countries in what constituted psychological abuse or neglect (The International Society for the Prevention of Child Abuse and Neglect [IPSCAN], 2014). These results highlight the complexities of defining abuse across cultures, as well as two parallel characteristics that are necessary to consider when determining whether a behaviour is conceptualized as abuse: severity and frequency. Some behaviours (e.g., punching, choking) are severe enough that they need to occur less frequently to be considered abusive and are more readily recognized as such. In contrast, less evidently severe behaviours (e.g., yelling, insulting) may need to occur as a pattern of behaviour to engender fear and helplessness in the target, complicating the detection of abuse and creating variation in definitions.

In CPA research, measures often rely on frequency scores (i.e., how many times has a behaviour occurred) to identify abuse, failing to account for variations in the severity of behaviour. This becomes particularly problematic in studies that have used the presence of a single behaviour, regardless of severity, as an indicator of abuse, resulting in inflated prevalence estimates (e.g., Calvete, Orue & Gámez-Guadix, 2015; Edenborough, 2007; Fawzi, Fawzi & Fouad, 2013; Izaguirre & Calvete, 2017). While this approach may be appropriate for identifying abuse involving severe behaviours like physical violence (e.g., strangling a parent), research examining perceptions of

psychological abuse in intimate partner relationships have shown that frequency of psychologically abusive behaviours is the most influential factor in determining whether it constitutes abuse (Follingstad & DeHart, 2000). Therefore, the presence of a single instance of a behaviour with the potential to be psychologically abusive (e.g., shouting or swearing at a parent) may not provide an appropriate measure of abuse.

There has been limited research dedicated to determining at what point behaviours escalate beyond aggressive, but normative, to become abusive, despite calls to clarify this threshold (Hollenstein & Lougheed, 2013; Kennedy, Edmonds, Dann & Burnett, 2010). Although some measures of CPA have attempted to address this issue by increasing the frequency threshold for ‘severe’ behaviour (e.g., occurring more than six times in a year; see Calvete et al., 2013), there has been no research to suggest that these thresholds are more effective at discriminating abusive from non-abusive behaviour. Further, they only capture repetition of a single behaviour, rather than considering an overall pattern of abuse that may involve multiple different types of behaviour.

While current methods of measurement in the study of CPA capture a range of potentially unacceptable behaviours that children use towards their parents, they do not attempt to differentiate normative from abusive behaviours according to the perspective of parents. By conflating abusive and somewhat aggressive youth, the true prevalence of CPA and unique characteristics associated with perpetration and victimisation may be obscured. This limits our ability to detect, intervene in, and prevent CPA.

1.3 Research Aim 2: Advance Understanding of Individual and Familial Factors Related to CPA

CPA has been discussed in academic literature for sixty years, yet there remains poor understanding of the individual and familial factors that are related to

perpetration. This is partially related to how the field of CPA has developed and how the phenomenon has been measured. Most CPA research conducted during the twentieth century was incidental as clinicians (e.g., Downey, 1997; Gallagher, 2004; Harbin & Madden, 1979) and researchers (e.g., Brezina, 1999; Kolko, Kazdin & Day, 1996; Spillane-Grieco, 2000) published findings from samples of aggressive or abusive children without intentionally measuring CPA. This created a disjointed field of exploratory research that developed without purposeful hypothesis testing. After publishing their novel findings, researchers and clinicians would often return to their respective areas of interests and the cycle of exploratory research would continue. It has only been within the past 10 years that CPA has been subject to more intentional study by a small group of researchers. However, the disjointed body of literature and lack of any comprehensive reviews means that there remains a lack of clarity regarding characteristics of perpetrators and victims that are consistently related to CPA. This hinders our understanding of the phenomenon of CPA, as well as our ability to generate hypotheses and develop a theory explaining the phenomenon.

This thesis seeks to advance understanding of individual and familial factors related to CPA by collating the extant literature into a comprehensive review to determine trends and gaps in research. Further, by developing and using an instrument that specifically differentiates abuse and aggression, the goal is to bring advance understanding of possible risk factors associated with abuse. Finally, by drawing upon two complementary theoretical frameworks of aggression, the General Aggression Model (GAM; Anderson & Bushman, 2002) and I³ (Finkel, 2007), this thesis attempts to address the gaps in the literature in a theoretically informed manner.

1.4 Chapter 2: Sixty Years of Child-To-Parent Abuse Research: What We know and Where to Go

The first associated paper is the most comprehensive review of CPA literature conducted to date. This review presents findings within the framework of the Social-Ecological Model (Bronfenbrenner, 1979; Dutton, 1995), highlighting the personal, relationship, social, and cultural factors that are related to perpetration. The paper was co-authored by the candidate, Dr Troy, McEwan, A/Prof Rosemary Purcell, and Prof James R. P. Ogloff. The candidate's contribution to this paper was equivalent to 80%. Specifically, the candidate conducted a thorough literature review, drafted the paper, and proposed questions for future research. Dr McEwan supported the preparation of the paper through refining the structure and editing (10%). A/Prof Rosemary Purcell and Prof Ogloff reviewed the final manuscript for clarity and readability (5% each). The manuscript was submitted to the journal *Aggression and Violent Behavior* (see List of Papers Table for submission details). This paper is written in American English, unlike the rest of the thesis, in order to conform to journal requirements.

While previous reviews have attempted to systematically evaluate CPA literature (see Hong, Kral, Espelage & Allen-Meares, 2012; Kennair & Mellor, 2007), the inconsistent use of keywords with the field of CPA resulted in an incomplete review of relevant literature. Chapter 2 used the same search terms as Hong and colleagues' (2012), however, by additionally searching reference lists and articles that had cited those featured in the previous review, an additional 20 articles were located from the same time period. This review also moved beyond the approach of Hong and colleagues by interpreting CPA research findings within the context of the differing sample characteristics, and by drawing on existing aggression and family violence theories to propose a range of novel research questions for the field.

Chapter 2 adds substantially to the literature by integrating and interpreting the entire body of known research regarding perpetrators of CPA. This chapter highlights that most research has been descriptive or correlational, typically focusing on

perpetrator characteristics that are not amenable to direct intervention. In contrast, there has been relatively limited investigation of individual or interpersonal psychological factors, relationship dynamics, or situational antecedents. It becomes clear that, despite research suggesting that the pattern of abuse changes with age (Peek, Fischer & Kidwell, 1985, Walsh & Krienert, 2007) and official statistics highlighting that CPA continues beyond adolescence (Snyder & McCurley, 2008), CPA researchers have neglected to investigate young adults who abuse their parents.

Chapter 2 provides a foundational basis for the subsequent chapters of the thesis. To effectively interpret the literature, the review considers the how the measurement of CPA has affected findings, specifically noting that non-physical abuse research must be interpreted with caution due to the frequency use of overly inclusive definitions. This conclusion highlights the necessity to improve understanding of what constitutes abuse and how it is measured (Research Aim 1). The review concludes by posing research questions that can address gaps of knowledge and progress CPA research focussing on relevant individual, familial, societal, and cultural factors. One of these research questions is subsequently addressed in Chapter 3, and five are addressed in Chapter 5 (Research Aim 2).

1.5 Chapter 3: Defining the Frequency at Which Problematic Child-To-Parent Behaviours Become Abusive

Chapter 3 is an empirical study that explores social norms regarding child-parent interactions, attempting to determine a threshold separating normative from abusive child-to-parent behaviour (Research Aim 1). The paper was co-authored by the candidate, A/Prof Rosemary Purcell, and Dr Troy McEwan. The candidate contributed to 85% of the paper. Specifically, the candidate conducted the literature review, designed and ran the study, conducted statistical analyses, and drafted the paper. A/ Prof Rosemary Purcell assisted with the study design, as well as providing

feedback on the structure and editing of the paper (10%). Dr Troy McEwan assisted with selecting the statistics for the paper and editing the paper (5%). The manuscript was submitted to *The Journal of Family Violence* (see List of Papers Table for submission details).

Despite researchers highlighting the importance of understanding the difference between normative and abusive child behaviour (Hollenstein & Lougheed, 2013; Kennedy et al., 2010), there has been little effort invested in clarifying the thresholds for abuse. This can be difficult when considering the unique power dynamics, role expectations, and social norms associated with child-parent relationships, particularly during adolescence. Further, the thresholds for abuse are likely to vary according to behaviour, as more subtle forms of aggression must occur frequently to create the same climate of fear and powerlessness as isolated incidents of severe acts, such as physical violence.

As a first step to address the limitations of current measurements, Chapter 3 sought to clarify the frequency thresholds at which individual behaviours are considered abusive. Parents of youth aged 14-25 years old ($n = 201$) and youth aged 14-25 years old ($n = 587$) completed the Beliefs About Child-to-Parent Abuse Questionnaire (BACPAQ). Participants were asked to consider *hypothetically* how often 40 individual behaviours have to occur before they are considered abusive, on a 6-point ordinal scale from *Once* to *Several Times a Day*. An additional option was provided to indicate that, regardless of its frequency, the behaviour did not have the potential to be abusive. Thresholds of abuse were determined by the frequency at which 80% of the sample recognised each behaviour as abusive.

Parents and youth unequivocally agreed that 36 of the 40 behaviours had the potential to be abusive. However, the frequency at which parents and youth perceived behaviours as abusive differed for one-third of all behaviours on the BACPAQ.

Specifically, youth were more permissive of physical aggression that did not result in injury, financial abuse, and intimidation. Parents' perspectives were ultimately used to define thresholds for abuse as they are the potential targets of the behaviour and therefore decide when the behaviour becomes unacceptable. Depending on the severity of the behaviour, parents' perceptions of thresholds for abuse varied to such an extent that some behaviours only had to occur once (e.g., strangling a parent) while others had to occur daily (e.g., yelling at a parent) to be considered abusive. Further, while some non-physically abusive behaviours had to occur daily to be abusive, others only need to occur once (e.g., made a parent do something humiliating), highlighting that even non-physically abusive behaviours range in severity, increasing the difficulty of appropriately measuring abuse.

Chapter 3 contributes to the literature by presenting novel information regarding what is perceived as socially acceptable within child-parent interactions. The results suggest that many child-to-parent behaviours have the potential to become abusive if they occur frequently enough. The paper highlights the advantage of using an empirical approach to investigate what is considered abusive, rather than assuming that behaviours that are abusive in one relationship (e.g., between intimate partners) will be abusive within the child-parent relationship. For instance, two behaviours which were drawn from measures of psychological intimate partner abuse were not perceived by parents as abusive within the child-parent relationship, regardless of their frequency. Further, this paper suggests that current measures of CPA are limited in their ability to measure verbal abuse, as such behaviours had to occur at least 52 times (i.e., weekly) in a year to be abusive. However, most commonly used CPA scales (Calvete et al., 2013; Edenborough, Wilkes, Jackson & Mannix, 2011; Ghanizadeh & Jafari, 2010; Straus, 1979) use scoring procedures that are unable to differentiate normative from abusive behaviour.

1.6 Chapter 4: The Development of the Abusive Behaviour by Children- Indices (ABC-I) to Discriminate Abusive from Normative Behaviour

The paper in Chapter 4 directly addresses Research Aim 1 by building upon knowledge gained in Chapter 3, to create the Abusive Behaviour by Children- Indices (ABC-I), which scores abuse using both the frequency and severity of each behaviour. The paper was co-authored by the candidate, Dr Troy McEwan, A/Prof Rosemary Purcell, Dr Minh Hyunh. The candidate's contribution to this paper was equivalent to 80%. The candidate designed the study, created the scoring procedure for the ABC-I, conducted the statistical analyses, and drafted the paper. Dr McEwan assisted with the development of the scoring procedure, structuring and editing the paper (10%). A/Prof. Purcell assisted with the study design and reviewed the draft manuscript for content, clarity, and readability (5%). Dr Hyunh assisted provided statistics consultation and reviewed the final manuscript (5%). The manuscript was submitted to *Journal of Interpersonal Violence* (see List of Papers Table for submission details).

Chapter 4 contains two empirical studies detailing the development and validation of the ABC-I. The development of the ABC-I was informed by the thresholds for abuse established using the BACPAQ. Any behaviour occurring frequently enough to meet the threshold for abuse as detailed in Chapter 3 received a score of '16' at that frequency. Behaviours that occurred more or less frequently than the threshold received scores that were higher or lower by a factor of 2, thus creating a standardised scoring system incorporating the severity of each behaviour. All behaviours that met the threshold for abuse receive the same score regardless of whether the item describes a physical, psychological, or verbal behaviour. The ABC-I was developed with parents of youth 14-25 years ($N = 201$) and validated with youth aged 14-25 years ($N = 587$). The final ABC-I included nine questions, divided into

three components, with an overall cut-off score used to categorise the pattern of reported behaviour as abusive or non-abusive.

The ABC-I effectively discriminated between parents who described their child as abusive and those who did not, demonstrating good criterion validity. Among youth, the ABC-I demonstrated moderate convergent validity with the Child-to-Parent Abuse Questionnaire (CPAQ; Calvete et al., 2013), the most commonly used CPA measure to date. While sons and daughters abused their mothers at similar rates, sons were significantly more likely than daughters to abuse their fathers or abuse any parent overall.

This chapter addresses some of the significant limitations of the CPA literature by creating the first measure to use a scoring procedure that considers both the severity and frequency of individual behaviours. Further, the ABC-I has an empirically derived cut-off for abuse that demonstrates excellent criterion validity and which has utility when considering individual behaviours as well as an overall pattern of abuse. Interestingly, our sample differed in regards to the gender profile of targets and perpetrators in comparison to past research (see Chapter 2 of this thesis for review). However, this adds further evidence for the hypothesis that patterns of CPA change with age insofar as males become more abusive to their fathers as they become older (Peek et al., 1985; Snyder & McCurley, 2008; Walsh & Krienert, 2007)

1.7 Chapter 5: A Social-Cognitive Investigation of Young Adults who Abuse Their Parents

Chapter 5 describes an empirical study investigating individual and familial risk factors for CPA behaviours in a sample of young adults aged 18 to 25 years ($N = 435$). The paper was co-authored by the candidate, Dr Troy McEwan, A/Prof Rosemary Purcell, and Dr Minh Hyunh. The candidate's contribution to this paper was equivalent to 85%. The candidate designed the empirical study, recruited participants,

conducted the statistical analyses, and drafted the paper. Dr McEwan assisted with the study design, structuring, and editing the paper (5%). A/ Prof Purcell assisted with the study design and reviewed the draft manuscript for content, clarity, and readability (5%). Dr Hyunh assisted provided statistics consultation and reviewed the final manuscript (5%). The manuscript was submitted to *Journal of Adolescence and Youth* (see List of Papers Table for submission details).

This study addresses the second overarching aim of the thesis and five of the research questions posed in Chapter 2. Chapter 5 specifically investigates how exposure to family violence, anger, aggressive cognition (i.e., aggressive scripts, violent attitudes), and traits associated with self-control (i.e., rumination, emotional dysregulation, impulsivity), are related to scores on the ABC-I. Victimization for mothers and fathers was modelled separately, as research suggests that there may be different risk factors for CPA depending on victim's gender (Ibabe, Jaureguizar & Bentler, 2013).

The study found that the model explained a greater proportion of the variance in CPA against fathers (35%) than mothers (17%). While only three factors were associated with CPA against mothers (i.e., witnessing marital aggression, trait anger, and age of participant), seven factors were related to CPA against fathers (i.e., aggressive scripts, witnessing marital aggression, victimisation by fathers, trait anger, rumination, emotional dysregulation, and age of participant). Although previous community research has generally found gender symmetry in the perpetration of CPA and greater rates of mother abuse compared to father abuse, the results of this study found that males were significantly more likely than females to abuse their parents and there was gender symmetry in victimisation. These results are likely because of the greater prevalence of son-to-father abuse in this sample than in previous samples.

This study contributes to the literature by describing the demographic, familial, and psychological risk factors related to CPA in young adults. 1 in 7 young adults were categorised as abusive on the ABC-I over the previous 12 months, suggesting that CPA is a relatively common phenomenon among young adults. This is only the second peer-reviewed study of CPA to be conducted with young adults, and the first known study to model risk factors associated with CPA within this population. Further, this is the first study to examine risk factors for a pattern of abuse that takes both frequency and severity into account.

1.8 Conclusions

This thesis seeks to advance knowledge of CPA by clarifying gaps within CPA literature and developing a measure of *abuse* (rather aggressive behaviour), which accounts for both the severity and frequency of a child's behaviours (Research Aim 1). Using this measure, individual and familial factors related to CPA (Research Aim 2) were investigated in a young adult population.

In addition to providing the first comprehensive review of CPA literature, this thesis advances CPA research by developing a measure of abuse that can be used with both parents and youth to assess whether a pattern of behaviour occurs frequently enough *or* is severe enough to be considered abusive based on local social norms. The results of these studies highlight that present measures of abuse are sufficient for identifying acts of physical aggression that are abusive, but fail to identify abuse involving only non-physical acts, or to account for the overall pattern of behaviour that together constitutes abuse.

The ABC-I is a useful tool that could be adapted to other cultures when used in conjunction with the BACPAQ. Together, these two tools have implications for broader parenting, aggression, and abuse literatures by shedding light on the thresholds between normative and abusive behaviours, social norms regarding

behaviour within the child-parent relationship, and by creating a novel measure that considers more than just frequency when scoring potentially abusive behaviours. In Chapter 5, the ABC-I is used to explore the psychological mechanisms that contribute to CPA and the relationship between CPA and other forms of violence in the family in a sample of young adults. These implications of this research are further discussed in the integrated discussion as well as future research directions studying child-to-parent abuse in adolescents and young adults.

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Chapter 2: Sixty Years of Child-to-Parent Abuse Research: What We Know and Where to Go

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Abstract

Research on child-to-parent abuse has been on-going for approximately 60 years. Yet, due to a diffuse body of literature and a lack of theoretical integration, it remains one of the least understood types of family violence. This paper presents a comprehensive narrative review of the child-to-parent abuse literature, using a socio-ecological framework and addressing pitfalls of previous reviews by interpreting findings within the context of methodological differences and already established theories of aggression and family violence. The review highlights that the majority of research regarding child-to-parent abuse has been descriptive, focusing on characteristics of perpetrators that are generally not amenable to direct intervention. Conversely, there is a paucity of research examining individual psychological factors, the parent-child relationship, or situational antecedents of abuse, which may be more clinically useful. Moreover, cultural and social factors related to child-to-parent abuse are poorly understood. A number of recommendations arise from the review, including the need for gender-sensitive, age-inclusive, and theoretically driven, research. The review concludes by posing specific research questions to guide future studies.

KEYWORDS: Child-to-parent abuse; Child-to-parent violence; Family violence; Aggression; Socio-ecological model

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2.1 Introduction

This paper seeks to integrate 60 years of diffuse research on children who abuse their parents. Variation in samples, definitions, and measurement approaches have contributed to a complex literature on child-to-parent abuse (CPA), marked by variance in prevalence estimates and research findings. This review is structured according to Bronfenbrenner's (1979) nested ecological model of development (adapted by Dutton, 1995). This model provides a useful multifactor framework to interpret and synthesize findings and has been applied to similar areas of research—including intimate partner abuse (IPA; Dutton, 1995) and general antisocial behavior (Borduin, 1999). This review also considers how various risk markers associated with CPA may interact with each other to produce aggressive behavior. This allows for hypothesis generation drawing upon the tenets of the general aggression model (Anderson & Bushman, 2002), which posits that aggression is a by-product of an interaction between specific kinds of individual, situational, and biological factors. As there is increasing attention on the connections between interpersonal aggression in different contexts (Hamby, 2011; Hamby & Grych, 2013), this review also provides suggestions for how CPA research may be integrated with existing bodies of research into interpersonal violence (e.g., IPA, general aggression, and adolescent antisocial behavior) and considers the potentially unique characteristics of CPA. Based on the results of the narrative review, this paper concludes with recommendations for future research that can advance understandings of CPA and guide effective prevention and intervention efforts.

2.1.1 What is CPA?

Although prevalent, CPA is one of the most understudied types of family violence. The first known mention of the phenomenon in scientific literature was in a 1957 study of child-rearing that included an examination of how childhood aggression

was learned (Sears, Maccoby & Levin, 1957). In the context of the women's rights movement and increased recognition of domestic or intimate partner abuse, Harbin and Madden (1979) coined the term "battered parent syndrome" to describe the effects of children abusing their parents. However, this form of family violence failed to attract much attention throughout the closing decades of the 20th century, despite other kinds of family violence receiving increased research and policy interest (Appel & Holden, 1998; Johnson & Ferraro, 2000).

The lack of attention to CPA research reflects a lack of recognition of this behavior as a phenomenon, let alone as a social problem. In the 60 years since CPA was first described in scientific literature, there have been very few literary or cultural references to it. While accounts of parricide (i.e., the killing of one's parents) are easily identified—such as *Oedipus Rex* (Sophocles, 429BC/2012), *The Good Son* (Ruben, 1993), and *We Need to Talk about Kevin* (Shriver, 2003)—there are few references to children who abuse their parents without it resulting in murder. What is prevalent from the mid-20th century onwards are references to sullen and moody teenagers who may be disrespectful to, or critical of, their parents, especially in an attempt to assert their own independence. This stereotype has become an accepted, if not defining, aspect of adolescence in industrialized societies (Lesko, 2001). As all behavior exists on a continuum, it is surprising that so little consideration has been given to whether this archetype of disrespectful or critical behavior could escalate to the point of abuse that causes harm to parents.

2.1.2 Defining CPA.

One of the primary challenges in developing scientific knowledge of CPA is the inconsistency with which the phenomenon has been defined. Generally, CPA research has operationalized the term "child" by using age of the perpetrator rather than their relationship to the target. Little research extends beyond the age of 18 years,

which is when perpetrators would legally be considered adults rather than children. However, national data from Australia, Canada, the United Kingdom (UK), and the United States (US) reveals that at least half of children over the age of 18–24 years continue to live with their parents (Australian Bureau of Statistics [ABS], 2009; Eurostat, 2015; Statistics Canada, 2017; Vespa, Lewis & Krieder, 2013). Such high rates of cohabitation warrant a focus on the relationship between perpetrator and target when defining CPA, rather than using an arbitrary age-based limit on possible perpetration. Conversely, there is a good argument for excluding very young children from the definition of CPA—given the developmental differences between older children who have the capacity to form intent to act in an abusive way, and children as young as two who have been included in some research (e.g., Nock & Kazdin, 2002). While early childhood aggression is an important topic, generalizing between this and violence or abuse by older children is likely to be inappropriate due to differences in developmental stage and the roles of parents.

The operationalization of violence and abuse in CPA research has also been flawed. Recent literature has popularized the term “child-to-parent violence,” which is broadly defined to include acts of psychological, emotional, or financial abuse (Cottrell, 2001; Holt, 2013). This leads to something of a disconnect from the broader literature in which such behavior would be described as aggression or abuse rather than violence. Aggression is commonly defined as any behavior that is intended to harm a target or that the target is motivated to avoid; violence is a specific subtype of severe physical aggression, such as acts resulting in injury (Anderson & Bushman, 2002; Berkowitz, 1993; Bushman & Huesmann, 2010). Abuse is defined by a pattern of cruelty or violence (Abuse [Def. 2], 2017) that results in one party having power or control over another (Cottrell, 2001; Holt, 2013). Abuse may involve physical aggression, but is also characterized by other behaviors. To ensure definitional

consistency with the broader literature, in this review we have adopted the term ‘child-to-parent abuse’ to capture the full range of physical, emotional, and psychological aggression that may be enacted by a child towards their parent.

CPA literature faces further problems stemming from inconsistent definitions and the operationalization of different kinds of abusive behavior. For instance, depending on the measure used, shouting may be defined as verbal aggression (Straus & Fauchier, 2008) or psychological aggression (Calvete, Gamez-Guadix, Orue, et al., 2013). Likewise, financial abuse has been measured as a construct on its own (Ibabe, Arnoso & Elgorriaga, 2014), as a part of psychological abuse (Calvete, Gamez-Guadix, Orue, et al., 2013), and as a factor combined with physical abuse (Ghanizadeh & Jafari, 2010). This can make it difficult to generalize findings across studies and to build a cohesive body of research. There is also a lack of consistency in the nature of behaviors that are thought to constitute CPA across studies, from yelling at a parent to incarceration for assaulting a parent. Given the differences in the kinds of behaviors included in definitions of CPA (e.g., verbal vs. physical aggression), there is, understandably, variation in the individual and social characteristics that have been associated with CPA. Generalizing results across studies using different definitions of abuse has led some previous literature reviews (Hong, Kral, Espelage & Allen-Meares, 2012; Kennair & Mellor, 2007) to conclude, inaccurately, that the field is rife with contradictory findings.

2.1.3 Frequency estimates of CPA.

Taking the limitations of CPA definitions into account, the 12-month incidence of adolescent-perpetrated physical CPA in the community has been estimated to be between 5 and 21% (Browne & Hamilton, 1998; Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Calvete, Gamez-Guadix, Orue, et al., 2013; Calvete, Orue & Gámez-Guadix, 2013; Calvete, Orue, Gamez-Guadix & Bushman, 2015; Cornell & Gelles,

1982; Elliott, Cunningham, Colangelo & Gelles, 2011; Ibabe, 2014; Ibabe, 2016; Ibabe & Bentler, 2016; Ibabe, Jaureguizar & Bentler, 2013a; Lyons, Bell, Fréchette & Romano, 2015; McCloskey & Lichter, 2003; Ulman & Straus, 2003). Estimates for the prevalence of verbal, psychological, and emotional CPA in the community vary from 33–93% depending on the definition used (Calvete, Gamez-Guadix, Orue, et al., 2013; Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Calvete, Orue & Gámez-Guadix, 2015; Ibabe et al., 2013a; Ibabe, Jaureguizar & Bentler, 2013b; Jaureguizar, Ibabe & Straus, 2013; Pagani et al., 2009). With regard to financial abuse, a Spanish study found that 53% of identified CPA offenders, as well as 21% of non-CPA juvenile offenders and non-offending youth in the community, perpetrated financial abuse against their parents (Ibabe et al., 2014).

CPA appears to be particularly prevalent among young people involved with the criminal justice system. In Australian and American jurisdictions, CPA is implicated in 85% of adolescent restraining orders (Purcell, Baksheev & Mullen, 2014), 40–60% of juvenile domestic violence charges (Routt & Anderson, 2011; Snyder & McCurley, 2008), and 13% of domestic violence reports (Buzawa & Hotaling, 2006; Royal Commission into Family Violence, 2016). Although the majority of CPA perpetrators in the justice system are male (Condry & Miles, 2014; Routt & Anderson, 2011; Snyder & McCurley, 2008; Walsh & Krienert, 2009), CPA perpetration is relatively common among female offenders. One study of incarcerated females found that 57% of offenders' first encounters with the criminal justice system was a CPA-related charge (Davis, 2007). These figures—while difficult to generalize and extrapolate from—suggest that CPA is prevalent in industrialized societies whether it is a recognized phenomenon or not.

2.1.4 Shortcomings of existing reviews of CPA research.

Several reviews have attempted to explain CPA in existing single-theory theoretical frameworks; these include feminist, evolutionary, social learning, and family systems theories (e.g., Archer, 2013; Baker, 2012a; Baker, 2012b; Downey, 1997; Holt, 2016; Hunter & Nixon, 2012; Hunter, Nixon & Parr, 2010; Tew & Nixon, 2010; Wilcox, 2012). Single-factor theories help to explain increases or decreases in the likelihood of behavior by describing a specific mechanism or process related to the behavior. For example, feminist perspectives emphasize gender inequality as the primary causal factor in relationship aggression (Hamby, 2011). These reviews provide some insight into CPA. However, as behavior is determined by a complex interaction between multiple factors—such as biological, genetic, cognitive, behavioural, personality, social, and cultural—rather than a single isolated process (Ward, Polaschek & Beech, 2006), reviews that only address a single factor offer limited utility for generating research hypotheses or developing case formulations in clinical practice (Gannon, Collie, Ward & Thakker, 2008). Ward and colleagues (2006) suggested that understanding complex behaviors requires integrating single-factor theories into a multifactor theoretical framework that not only describes multiple mechanisms of effect, but also integrates research across a variety of domains that are essential to understanding and predicting behavior (Hamby, 2011; Hamby & Grych, 2013).

Only one review to date has attempted to integrate existing CPA literature into a multifactor framework in this way. Hong and colleagues (2012) used Bronfenbrenner's (1979) ecological model to review 30 studies of CPA published between 1980 and 2010. While approaching the literature with a similar intent to the current paper, Hong and colleagues' (2012) review suffers from some significant limitations, such as missing 20 articles on CPA that were published during the relevant

period; these were identified for this paper by searching reference lists and articles that had cited those featured in Hong and colleagues' review. Despite providing a concise summary of the literature, the authors did not integrate the findings into the broader context of adolescent offending or general aggression to promote theory development. Further, Hong and colleagues' review failed to consider the findings in the context of varying samples—community, offender, or clinical—and only reviewed studies of perpetrators aged 19 years and younger. As such, the review provided an overly simplistic conclusion that White males aged 14–17 were the typical perpetrators of CPA and White females were the typical victims. Yet, males were only more likely than females to be perpetrators in samples in which the offenders had been legally sanctioned for CPA (Strom, Warner, Tichavsky & Zahn, 2014); representative community samples have overwhelmingly found gender parity among perpetrators (Ibabe & Bentler, 2016). Further, while mothers were generally more likely to be targets of CPA, Hong and colleagues' (2012) review failed to highlight that the pattern of victimization appeared to change according to the age of perpetrator—that is, older males were more likely to assault fathers (Walsh & Krienert, 2007)—and the severity of the behavior (Calvete, Gamez-Guadix, Orue, et al., 2013).

2.2 An Integrated Approach to CPA

This paper seeks to address the shortcomings of previous reviews by critically examining CPA literature from different disciplines in the context of their varying samples and from a multifactor perspective. While this review is constrained to some extent by the limitations of the literature, it has been structured to bring clarity and to guide future research. When referring to a particular type of CPA, the abbreviation is prefaced with a relevant descriptor for that type (e.g., physical CPA). This review discusses findings from community, offender, and clinical samples wherever possible; for ease of interpretation, it groups references according to their sampling

methodology by prefacing them with “community,” “offender,” or “clinical.” Clinical samples are those in which participants were subject to psychological or welfare interventions, or were recruited in a mental health context. Offender samples comprise those recruited in forensic settings, such as courts or detention settings. Where relevant, CPA research is considered in the context of interpersonal violence and antisocial behavior literature to establish interconnections with related areas of research that are well established in their theoretical foundations. This approach reflects Hamby and Grych’s (2013) observation that using the insights from various subdisciplines of violence research can advance knowledge in other areas and can contribute to a more integrated approach to understanding violence. Research on interventions for CPA is not presented in this review (unless the correlates of victimization or perpetration are also described).

The search terms “child-to-parent abuse,” “parent abuse,” “parental aggression,” “parental violence,” “child-to-parent violence,” “child-to-mother aggression,” “child-to-father aggression,” and “teenage violence towards parents” were entered into Web of Science; these returned 9880 English language peer-reviewed articles up until December 2016, 48 of which described CPA perpetrator or target characteristics. Research that used service providers as participants, such as therapists or group facilitators, or that was specifically focused on interventions, was not included. An additional 35 references were identified by searching reference lists and articles that cited known literature. This paper also reviews a government document that included data on national prevalence rates and patterns of CPA (Snyder & McCurley, 2008). The 84 references reviewed are highlighted by an asterisk (*) in the reference list. No age limit was used in the review to focus on the parent–child relationship or to consider whether CPA changes with age. This review does not include any research specifically examining elder abuse, which may be by a child or

another person, or aggressive behavior in toddlers. Correlates or risk factors identified in the existing CPA literature are discussed regardless of how many studies investigated them, in addition to factors identified as relevant in other aggression literatures that have not been investigated in the CPA literature to date. Appendix 1 provides a reference table that allows an easy comparison of sample types, research designs, and areas of investigation across studies.

2.2.1 CPA from a social-ecological perspective.

This review provides an updated and comprehensive narrative review of CPA literature that is structured around a social-ecological perspective (Bronfenbrenner, 1979; Dutton, 1995) (see Figure 2.1). The social-ecological model reflects a multifactor approach to understanding the development of violence in which individual differences in personal and developmental factors (ontogenetic factors) interact with the family (microsystem), the subcultures in which the individual belongs, such as school or religious groups (exosystem), and the broader culture (macrosystem) to produce violent behavior. This model is useful for integrating information from different disciplines, such as sociology and developmental psychology, and organizing factors related to the perpetration of CPA in a manner that reflects its multiply determined nature. However, explicating mechanisms of effect are beyond the scope of a social-ecological model (Hamby & Grych, 2013). As such, this review integrates discussion of the general aggression model (Anderson & Bushman, 2002) to consider possible mechanisms of effect and interconnections between CPA and other violence literature.

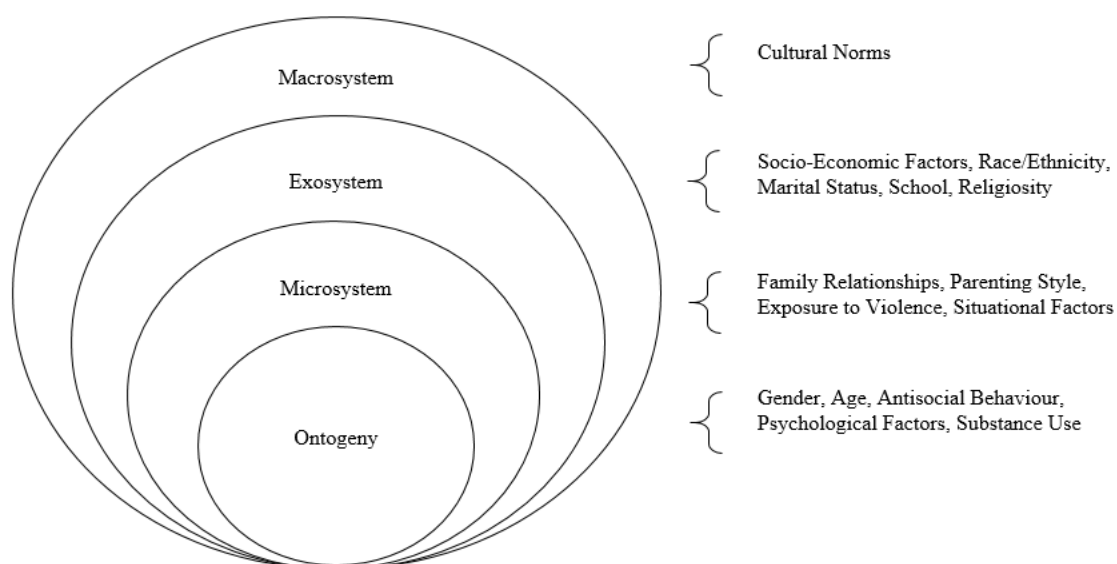


Figure 2.1. Social ecological model with relevant correlates and risk factors.

2.3 Ontogenetic Factors Related to CPA

The majority of CPA research has focused on the ontogenetic (personal and developmental) characteristics of CPA perpetrators, with some consideration given to these characteristics for the targets of CPA. In addition to demographic factors, research has investigated patterns of individual behavior, the role of substance use (or misuse) by the perpetrator and victim, and child emotional and mental well-being.

2.3.1 Gender.

Studies of representative community samples have found that between 4.6% (Calvete, Gamez-Guadix, Orue, et al., 2013) and 22% (Margolin & Baucom, 2014) of youth perpetrate physical CPA. Typically, research has found no significant differences in rates of perpetration between females and males in community samples (Agnew & Huguley, 1989; Browne & Hamilton, 1998; Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Elliott et al., 2011; Hartz, 1995; Hotaling, Straus & Lincoln, 1989; Ibabe & Bentler, 2016; Jaureguizar et al., 2013; McCloskey & Lichter, 2003; Pagani, Larocque, Vitaro & Tremblay, 2003; Pagani et al., 2004; Pagani et al., 2009; Paulson, Coombs & Landsverk, 1990; Ulman & Straus, 2003) and clinical samples

(Ghanizadeh & Jafari, 2010; Kageyama et al., 2015; Kolko, Kazdin & Day, 1996; Nock & Kazdin, 2002). Only three studies (community samples) reported different results; this suggests either an interaction effect between victim and perpetrator gender (Ibabe et al., 2013a), or that females report greater levels of trivial violence, but similar levels of severe violence (Agnew & Huguley, 1989; Calvete, Gamez-Guadix, Orue, et al., 2013). Consistent gender differences in reported non-physical CPA community research samples suggest that girls tend to be more verbally or psychologically abusive towards their parents than boys (Calvete, Gamez-Guadix, Orue, et al., 2013; Calvete, Orue & Gámez-Guadix, 2013; Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Calvete, Orue & Gámez-Guadix, 2015; Calvete, Orue, Gamez-Guadix & Bushman, 2015; Ibabe & Bentler, 2016; Jaureguizar et al., 2013; Margolin & Baucom, 2014; Pagani et al., 2003; Pagani et al., 2004; Pagani et al., 2009). However, due to the low threshold for psychological or verbal abuse adopted in some studies (e.g., shouting at a parent once), these results should be interpreted with caution.

The overall trend towards gender symmetry in self-reported CPA in community samples is not reflected in offender samples. Across studies of offenders, males accounted for 59–87% of perpetrators (Condry & Miles, 2014; Ibabe & Jaureguizar, 2010; Ibabe et al., 2014; Ibabe, Jaureguizar & Diaz, 2009; Kennedy, Edmonds, Dann & Burnett, 2010; Kethineni, 2004; Purcell et al., 2014; Routt & Anderson, 2011; Snyder & McCurley, 2008; Strom et al., 2014; Walsh & Krienert, 2009). While males accounted for more abuse overall in offender samples, females tended to use behavior of a similar nature and severity to male offenders when arrested, charged, or convicted (Condry & Miles, 2014; Ibabe & Jaureguizar, 2010; Nowakowski & Mattern, 2014; Purcell et al., 2014; Strom et al., 2014). These findings could reflect higher rates of serious violence among male perpetrators of CPA. However, the pattern of gender symmetry in community samples, and gender

difference in offender samples, was similar to that identified in intimate partner abuse literature (Langhinrichsen-Rohling, Selwyn & Rohling, 2012). This pattern may partly reflect gender biases in reporting, arrest, and sentencing that are apparent in most forms of criminal behavior (Daly & Bordt, 1995; Embry & Lyons, 2012; Rodriguez, Curry & Lee, 2006).

Although there is some evidence of gender symmetry in CPA perpetration, mothers are overwhelmingly reported to be the primary targets of CPA in community (Agnew & Huguley, 1989; Edenborough, Jackson, Mannix & Wilkes, 2008; Hartz, 1995; Lyons et al., 2015; McCloskey & Lichter, 2003; Ulman & Straus, 2003), offender (Contreras & Cano, 2014b; Evans & Warren-Sohlberg, 1988; Gebo, 2007; Ibabe & Jaureguizar, 2010; Ibabe et al., 2009; Kethineni, 2004; Miles & Condry, 2016; Nowakowski & Mattern, 2014; Purcell et al., 2014; Routt & Anderson, 2011; Selwyn & Meakings, 2015), and clinical samples (Biehal, 2012; Cottrell & Monk, 2004; de Lange & Olivier, 2004; Estroff, Swanson, Lachicotte, Swartz & Bolduc, 1998; Fawzi, M. H., Fawzi, M. M. & Fouad, 2013; Gallagher, 2004; Kageyama, Solomon & Yokoyama, 2016; Kageyama et al., 2015; Laurent & Derry, 1999; Nock & Kazdin, 2002). However, research in community samples regarding the severity of physical CPA found that fathers are just as likely as mothers to be targeted if there is an enduring pattern of abuse (Calvete, Gamez-Guadix, Orue, et al., 2013); when only serious violence is considered—such as beating up a parent, hitting a parent with an object, and threatening a parent with a weapon (Browne & Hamilton, 1998)—fathers are more likely to be targeted than mothers. While there is limited research on the interaction between gender and severity of abuse, these findings mirror parricide research, in which fathers are more likely to be targets (Bourget, Gagné & Labelle, 2007; Heide & Petee, 2007; Myers & Vo, 2012).

Contrary to the overwhelming majority of community sample research, three studies found that fathers are as likely (Ibabe et al., 2013a; Ibabe et al., 2013b) or more likely (Peek, Fischer & Kidwell, 1985) to be the targets of physical CPA, regardless of severity, as mothers. Unlike most community research, these samples included more male than female participants (Ibabe et al., 2013a; Ibabe et al., 2013b) or only male participants (Peek et al., 1985). Research that has adopted a more sophisticated view by investigating the interaction between target and perpetrator gender found that fathers are more likely to be abused by their sons than by their daughters in community (Agnew & Huguley, 1989; Cornell & Gelles, 1982; Margolin & Baucom, 2014), offender (Condry & Miles, 2014; Evans & Warren-Sohlberg, 1988; Strom et al., 2014; Walsh & Krienert, 2007), and clinical samples (Boxer, Gullan & Mahoney, 2009). As such, the contrary gender findings may be a reflection of the atypical sample characteristics.

Research into the role of gender in general aggression found that gender moderates the relationship between risk factors and aggression (McFadyen-Ketchum, Bates, Dodge & Pettit, 1996). Therefore, in subsequent sections, this review will explicitly highlight risk factors that interact with the gender of either the perpetrator or the victim.

2.3.2 Age.

CPA perpetration appears to peak in mid-adolescence and then gradually decline with age in community (Ibabe, 2014; Ibabe & Bentler, 2016; Ulman & Straus, 2003), offender (Condry & Miles, 2014; Evans & Warren-Sohlberg, 1988; Paulson et al., 1990; Snyder & McCurley, 2008; Strom et al., 2014; Walsh & Krienert, 2007; Walsh & Krienert, 2009) and clinical samples (Eckstein, 2004; Fawzi et al., 2013; Sheehan, 1997; Vaddadi, Gilleard & Fryer, 2002; Vaddadi, Soosai, Gilleard & Adlard, 1997). This is consistent with research on age and offending generally, as well as

general aggression, which shows a similar adolescent peak and reduction over the remainder of the lifetime (Moffitt, 1993). Data from the Federal Bureau of Investigation's National Incident Based Reporting System found that CPA accounted for half of all assault charges against offenders aged 13–15 years old, but only one in five assault charges for offenders aged 18–24 years old (Snyder & McCurley, 2008). This relationship was particularly noticeable in female offender populations, as proportionally fewer females committed CPA as adults than as juveniles (Kethineni, 2004; Snyder & McCurley, 2008; Walsh & Krienert, 2007). This pattern is consistent with intimate partner abuse perpetration, in which there are higher reported rates of female aggression in younger samples, and higher reported rates of male aggression in older samples (Archer, 2002). While CPA perpetration is notably related to age, it does not cease at the age of 18, with 10% of assaults committed by young adults (i.e., 18–24 years old) being directed at parents (Snyder & McCurley, 2008). Further, McCloskey & Lichter (2003) found an increase in CPA perpetration in community participants over the age of 18 years who had witnessed family violence. These results highlight the need to focus on the child–parent relationship, rather than just the age or developmental stage when studying CPA.

Research suggests that, as age increases, the pattern of CPA changes. For instance, age may affect victim selection, with fathers being more likely to be the targets of adult male sons, as shown in community (Agnew & Huguley, 1989; Peek et al., 1985) and offender samples (Walsh & Krienert, 2007). Peek and colleagues' (1985) all-male study found that while fathers were half as likely as mothers to be abused when their children were aged 15–16 years, they became twice as likely to report abuse when the perpetrators were aged 17–18 years. The participants in Peek and colleagues' study were slightly older (15–18 years) than the participants in other studies (10–17 years) (Kennair & Mellor, 2007), which might explain why few other

community studies have found similar results. In a rare community study of CPA in adults, Browne and Hamilton (1998) found that fathers were more likely than mothers to be the targets of severe physical violence (e.g., beat up or hit with a weapon) by their university-aged children. Interestingly, fathers remained less likely than mothers to be targets of general physical CPA.

2.3.3 Antisocial patterns of behavior.

The best predictor of aggressive behavior is the presence of similar behavior in other contexts (see review of Otto & Douglas, 2011). Research in community samples suggests that CPA often occurs in the presence of a broader pattern of antisocial behavior by the child (Herrera & McCloskey, 2003; Ibabe, 2014; Ibabe et al., 2013a; Jaureguizar et al., 2013; Pagani et al., 2003; Pagani et al., 2004; Pagani et al., 2009; Ulman & Straus, 2003). The same is true of offender samples (Ibabe et al., 2014; Kennedy et al., 2010; Kethineni, 2004; Kratcoski, 1985; Nowakowski & Mattern, 2014; Purcell et al., 2014; Routt & Anderson, 2011) and clinical samples (Biehal, 2012; Sheehan, 1997; Spillane-Grieco, 2000; Weinblatt & Omer, 2008). Pagani and colleagues' (2003; 2004; 2009) community samples found that a history of other violent behaviors was highly predictive of CPA. Teachers annually assessed 1175 participants aged 6–12 years, rating whether they were violent towards their peers and categorizing their aggression levels as: 1) persistently high levels of aggression; 2) aggression declined after high levels in kindergarten; 3) aggression almost ceased after only moderate levels in kindergarten; and 4) almost no physical aggression throughout the lifespan. The odds of perpetrating CPA at 15–16 years of age were significantly related to violence trajectory categories. Those who were persistently violent were more likely to be physically abusive to their mothers (30% vs. 5.2%) and their fathers (18% vs. 7.2%) than those who displayed almost no

aggression. Similar results were found for verbal abuse against mothers (91% vs. 44%) and fathers (84% vs. 43%).

Pagani and colleagues' (2003; 2004; 2009) community sample results are generally consistent with Moffitt's (1994) broader developmental taxonomy of antisocial behavior, which includes the perpetration of aggressive and violent behaviors. Moffitt proposed two antisocial trajectories that vary in the origin and course of behavior and are differentially associated with negative consequences—that is, violence, mental health, physical health, and economic difficulties. Individuals who engaged in antisocial behavior when young (≤ 11 years old) and persisted into adolescence (i.e., life-course persistent [LCP]), had the highest levels of antisocial behavior as adults and experienced the greatest consequences from their behavior. Conversely, those who commenced antisocial behavior in adolescence (i.e., adolescent-limited [AL]) reported lower levels of adult antisocial behavior and relatively fewer consequences (Moffitt, 1993). Similar to Pagani and colleagues' (2003; 2004; 2009) community samples, Moffitt originally applied the taxonomy to people of both genders (Moffitt, Caspi, Rutter & Silva, 2001; Odgers et al., 2008). However, recent research has suggested that the trajectory and consequences of AL may vary for males and females, with females desisting earlier than males (Odgers et al., 2008); this is mirrored in CPA research in offender samples (Snyder & McCurley, 2008).

Moffitt's (1993) taxonomy proposed different pathways for the development of antisocial behavior. While AL antisocial behavior primarily develops through association with antisocial peers and the development of attitudes favouring the rewards of antisocial behavior, LCP antisocial behavior is underpinned by social, familial, and neurodevelopmental factors. Similarly, Patterson (1995) found that social

and familial factors may reinforce a pattern of early antisocial behavior, as children learn to use aversive behavior (e.g., temper tantrums) to have their needs met, inadvertently damaging their relationships. As these behaviors become reinforced, relational scripts develop, which act as cognitive shortcuts that inform the selection of behavior based on past experiences (see Baldwin, 1995; Huesmann, 1998). Indeed, Calvete, Gamez-Guadix and Garcia-Salvador (2015) found that CPA perpetration predicted aggressive response access and hostile attribution bias one year later in community participants. Children with early onset aggressive behavior have greater opportunity for their behavior to be reinforced, and for their aggressive relational scripts to be rehearsed, thus making them more likely to act aggressively towards their parents in the future. Such a pattern has been observed in representative community samples. Youth who perpetrated CPA reported displaying fewer prosocial behaviors towards their parents (Ibabe & Bentler, 2016; Jaureguizar et al., 2013), thus limiting their opportunity to develop positive relational scripts in their families that could prevent or stop CPA.

In addition to broader antisocial behavior, poor social skills and social maladjustment (e.g., aggressiveness and tendency to rebel) have also been linked to CPA perpetration in community (Ibabe, 2014; Ibabe et al., 2013a) and offender samples (Contreras & Cano, 2015; Contreras & Cano, 2016b). In combination with quality of upbringing by the mother and personal drug abuse, social maladjustment accounted for 20% of the variance in physical CPA by male perpetrators. Interestingly, this model failed to predict CPA by female perpetrators. For females in community samples, personal drug use was the only significant predictor, although it accounted for only 7% of the variance in daughter-to-father CPA (Ibabe et al., 2013a). As previously suggested, this finding highlights the need for gender-sensitive research into risk factors for CPA, even if perpetration rates are generally gender symmetrical.

2.3.4 Psychological factors related to CPA.

2.3.4.1 Cognitive and emotional factors.

In the broader aggression literature, factors related to cognition and emotional experience have received considerable attention (e.g., Anderson & Bushman, 2002; Slotter & Finkel, 2011; Gilbert, Daffern, Talevski & Ogloff, 2013). However, such factors have only recently gained attention in CPA research. Research in community (Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Calvete, Orue, Gamez-Guadix & Bushman, 2015) and offender samples (Contreras & Cano, 2016a) has linked CPA to the presence of maladaptive schemas, which are cognitive blueprints that guide processing and interpretation of environmental stimuli. Specifically, in a study of 591 dyads of a Spanish adolescent and a parent, lack of parental warmth predicted narcissism and rejection schemas in adolescents that, in turn, predicted CPA, with a one-year interval between assessments. Interestingly, schemas differed according to gender in community samples, with males who experienced low parental warmth being more likely to develop narcissism schemas, while females developed rejection schemas (Calvete, Orue, Gamez-Guadix & Bushman, 2015). Although individuals with narcissism schemas tended to present with an inflated sense of self-importance, both narcissism and rejection schemas were underpinned by an expectation of, and sensitivity to, rejection (Young, Klosko & Weishaar, 2003). As has frequently been noted in the general aggression and intimate partner abuse literature, perceived rejection elicited greater aggressive responses in individuals with high rejection sensitivity compared to those whose rejection sensitivity was low (Ayduk, Gyurak & Luerksen, 2008; Jacobs & Harper, 2013; Romero-Canyas, Downey, Berenson, Ayduk & Kang, 2010).

In addition to maladaptive schemas, research in offender samples suggests that incarcerated CPA offenders have poorer emotional regulation and coping skills than

youths without a history of CPA (Contreras & Cano, 2016b). These results may reflect general deficits in offender samples, rather than being specific to CPA offenders. However, Nock and Kazdin's (2002) study of individuals aged 2–14 years in outpatient treatment, suggested that there may be an underlying emotional regulation deficit in individuals whose CPA behavior began in childhood. Their results in clinical samples showed that adaptability and frustration tolerance at age 2–14 years was highly predictive of CPA and correctly classified 69% of cases (Nock & Kazdin, 2002). Given that the capacity for emotional regulation and frustration tolerance increases with age (see review of Zeman, Cassano, Perry-Parrish & Stegall, 2006), it is unclear whether these factors would account for such a large amount of variance in adolescents or adult children who perpetrate CPA.

CPA perpetration has also been linked to limited capacity for empathy in community (McCloskey & Lichter, 2003) and offender samples (Ibabe & Jaureguizar, 2010); low self-esteem or self-confidence in community (Calvete et al., 2014; Elliott et al., 2011; Ibabe, 2014; Ibabe et al., 2013b; Paulson et al., 1990) and offender samples (Ibabe et al., 2009); and reports of unhappiness (McCloskey & Lichter, 2003; Paulson et al., 1990), traits of anger (Calvete, Gamez-Guadix & Garcia-Salvador, 2015), and emotional dysregulation in community samples (Margolin & Baucom, 2014). However, results from community samples suggest that some of these findings may have been dependent on exposure to other forms of family violence (Ibabe, 2014; Margolin & Baucom, 2014; McCloskey & Lichter, 2003), and none have been integrated into a framework that proposes mechanisms linking such deficits to CPA.

2.3.4.2 Mental health.

There is some evidence of greater frequency of mental health concerns among young people who commit CPA compared to those who do not. Research in offender samples has found that CPA offenders are more likely to report depressive

symptomology (Ibabe et al., 2014) and to have received psychiatric or psychological treatment than non-CPA offenders (Contreras & Cano, 2015; Ibabe & Jaureguizar, 2010; Ibabe et al., 2009; Kennedy et al., 2010). Further, CPA perpetrators report higher rates of suicide attempts and self-harm in offender (Kennedy et al., 2010) and clinical samples (Biehal, 2012; Sheehan, 1997), while targets report greater levels of distress in clinical samples (Biehal, 2012) compared to individuals who have not experienced CPA. Whether this relationship is causal or merely correlational has not yet been investigated.

Attention-Deficit Hyperactivity Disorder (ADHD) appears to be the most common diagnosis among CPA perpetrators in contact with human service agencies in offender (Contreras & Cano, 2014a; Ibabe & Jaureguizar, 2010; Kethineni, 2004; Purcell et al., 2014; Routt & Anderson, 2011) and clinical samples (Biehal, 2012; Sheehan, 1997), followed by Conduct Disorder or Oppositional Defiant Disorder in offender samples (Contreras & Cano, 2014a; Ibabe & Jaureguizar, 2010; Kethineni, 2004; Purcell et al., 2014; Sheehan, 1997). All diagnoses were more common among CPA offenders than non-CPA offenders in offender samples (Contreras & Cano, 2014a). However, such findings are tautological, because perpetration of CPA could be used as justification for the diagnoses, which all emphasize disordered patterns of behavior. Other common diagnoses in samples of CPA perpetrators were Bipolar Disorder and Depression in community (Calvete, Orue & Gámez-Guadix, 2013) and offender samples (Routt & Anderson, 2011), with Calvete Orue and Gámez-Guadix (2013) reporting that depressive symptoms had a stronger relationship with CPA over a six-month follow-up than either substance use or aggressive tendencies. However, it is important to note that, while depressive symptomology was related to CPA in community samples, previous perpetration remained the single strongest predictor of future perpetration in this study (Calvete, Orue & Gámez-Guadix, 2013).

In addition to studies on the frequency of mental disorders among CPA perpetrators, a number of studies have investigated the frequency of CPA in samples of mentally disordered young people. These studies show high rates of physical CPA perpetration in clinical samples (de Lange & Olivier, 2004; Hsu & Tu, 2014; Vaddadi et al., 1997), with estimates ranging from 34–57% (Estroff et al., 1998; Fawzi et al., 2013; Ghanizadeh & Jafari, 2010; Kageyama, Solomon & Yokoyama, 2016; Kageyama et al., 2015; Vaddadi et al., 2002). Similar to the community samples, mothers were typically the targets of violence by mentally disordered young people in clinical samples (Estroff et al., 1998; Fawzi et al., 2013; Laurent & Derry, 1999; Nock & Kazdin, 2002). However, there were conflicting results regarding the interaction between perpetrator and target gender, with some studies finding no interaction effect in clinical samples (Fawzi et al., 2013; Nock & Kazdin, 2002), and others finding that, while there was no gender difference in mother abuse, males perpetrated father abuse at disproportionately greater rates than females in clinical samples (Boxer et al., 2009; Kageyama et al., 2015). In a study of 101 acute psychiatric adult patients, age was conversely related to the prevalence of CPA perpetration, while acuity of symptomology was positively related to CPA perpetration in clinical samples (Vaddadi et al., 1997).

The relationship between mental illness and aggression is more generally debated, with epidemiological studies from the broader literature showing both a positive (but moderate) relationship (Short, Thomas, Mullen & Ogloff, 2013) and much contention about the mediating role of substance use (Fazel, Langstrom, Hjern, Grann & Lichtenstein, 2009). The relationship is even less clear when considering aggression in familial relationships. There is a lack of research on the role of mental disorders in intimate partner abuse (Capaldi, Noble, Shortt & Kim, 2012) that makes it difficult to draw on findings to inform hypotheses relevant to CPA. More research

about the role of mental illness in CPA is required, particularly the role of certain types of symptoms and their interaction with risk factors to produce CPA, such as substance use, or misuse, and family factors.

2.3.5 Substance use.

A relationship between substance use and CPA is reported throughout the literature, possibly reflecting the recognized relationship between substance use and general aggression in community (Calvete, Gamez-Guadix, Orue, et al., 2013; Calvete, Orue & Gámez-Guadix, 2015; Ibabe et al., 2013b; Pagani et al., 2004; Pagani et al., 2009), offender (Contreras & Cano, 2015; Ibabe & Jaureguizar, 2010; Ibabe et al., 2009; Kethineni, 2004; Nowakowski & Mattern, 2014), and clinical samples (Estroff et al., 1998; Jackson, 2003; Sheehan, 1997). Research in community samples suggests that substance use predicts psychological and verbal CPA against both mothers and fathers (Calvete, Orue & Gámez-Guadix, 2015; Pagani et al., 2004; Pagani et al., 2009). However, the relationship between substance use and physical CPA appears to vary according to target gender. It failed to predict physical mother abuse for females in community samples (Ibabe et al., 2013b), but predicted father abuse regardless of perpetrator gender in community samples (Ibabe et al., 2013b; Pagani et al., 2009). Interestingly, Calvete, Gamez-Guadix and Garcia-Salvador (2015) found that, although female adolescents reported higher rates of substance use than males, substance use only predicted physical CPA for males in a six-month longitudinal design.

It is important to note that even when substance use was found to be predictive of future (Calvete, Gamez-Guadix, Orue, et al., 2013; Calvete, Orue & Gámez-Guadix, 2015) or concurrent CPA (Ibabe et al., 2013a) in community samples, the sizes effected were small. Likely, this is because research has typically assessed substance use as a distal factor, examining the history or frequency of use rather than

differentiating between substance use and misuse, or considering the extent to which it is an immediate antecedent of abuse. Given that history of substance use is a broad construct that may be underpinned by a variety of latent variables, it is understandable that it has less predictive power than relationship variables, situational factors, or propensity for aggression. Additionally, different kinds of substances may also play different roles in promoting or protecting against CPA, depending on the nature of their disinhibiting effects, which could reduce the overall effect size (Capaldi et al., 2012; Moore et al., 2008).

Research in offender populations suggests that substance use is related to an overall pattern of antisocial behavior rather than CPA specifically, as there are no differences in rates of substance use between CPA and non-CPA juvenile offenders (Contreras & Cano, 2015; Ibabe & Jaureguizar, 2010; Ibabe et al., 2014). Many community studies have also reported high rates of substance use (particularly alcohol) in their sample regardless of CPA history, limiting the specific predictive utility of substance use for CPA (Agnew & Huguley, 1989; C Calvete, Orue & Gámez-Guadix, 2015; Ibabe & Jaureguizar, 2010; Ibabe et al., 2009).

2.3.6 Summary of ontogenetic factors related to CPA.

Contrary to conclusions drawn by previous reviews, such as Hong and colleagues (2012) and Kennair and Mellor (2007), the gender profile of CPA perpetrators is relatively consistent throughout the literature, with gender symmetry seen in community samples, and a disproportionate number of males reported to the police for CPA in offender samples. The few contradictory findings that do exist are likely explained by sample characteristics, such as reporting on older or primarily male samples. Contradictory findings regarding the gender of CPA targets are potentially due to an interaction effect between victim gender, perpetrator gender, and age, although this needs to be explored further in future research.

CPA commonly appears to be part of a pattern of antisocial or aggressive behavior, with children who become aggressive at a young age and persist with this behavior throughout life being most likely to abuse their parents. This is consistent with other research on delinquency (Moffitt, 1993). Perhaps, unsurprisingly, problematic substance use is also frequently observed among CPA perpetrators. However, the small effect sizes in community samples, and similar rates of use compared to general offenders, suggest that substance use may be a part of an underlying pattern of behavior or distress, rather than a specific causal factor in CPA.

General aggression research highlights the importance of core social-cognitive processes in understanding aggression (Anderson & Huesmann, 2003; Murphy, 2013). The limited information about the role of these factors in CPA is marked. Further, while CPA perpetrators appear to have poor emotional and mental well-being, few implications are able to be drawn from the results, as mood and behavioral disorders are common and reflect high rates in the general population of young people (Merikangas et al., 2010).

2.4 Microsystem Factors Related to CPA

Understanding individual differences related to CPA perpetration is necessary, but inherently limited, as such a perspective ignores the interpersonal context in which the abuse occurs. Research investigating the microsystem surrounding the perpetrator—their relationship with the victim and the wider family—is essential to understanding the genesis and continuation of CPA. Research in community (Agnew & Huguley, 1989; Pagani et al., 2003; Pagani et al., 2004; Pagani et al., 2009) and clinical samples (Boxer et al., 2009) has found that family structure itself does not predict CPA once confounding factors involving family relationships, coping, and behavior are considered. These more complex factors go beyond simply considering the marital status of the parents and focus on problematic relational patterns that

appear to increase the likelihood of CPA occurring. Such research is key to prevention and intervention because it has the potential to inform the selection of treatment targets that have practical utility. However, because the majority of CPA research to date has been descriptive, there is little information on family relationship factors associated with CPA perpetration and victimization. The limited research available varies in quality and generally lacks the replication necessary to draw strong conclusions.

2.4.1 Family relationships.

Unsurprisingly, CPA perpetrators typically have strained family lives, as perpetration is related to poor relationships with parents in community (Agnew & Huguley, 1989; Brezina, 1999; Calvete, Orue, Gamez-Guadix & Bushman, 2015; Ibabe, 2016; Ibabe et al., 2013a; Ibabe et al., 2013b; Jaureguizar et al., 2013; Lyons et al., 2015; Paulson et al., 1990; Peek et al., 1985), offender (Contreras & Cano, 2014a; Contreras & Cano, 2015; Ibabe et al., 2014; Kennedy et al., 2010), and clinical samples (Biehal, 2012; Nock & Kazdin, 2002; Vaddadi et al., 2002). Perpetration is related to poor relationships with families as a whole in community (Ibabe & Bentler, 2016; Ibabe & Jaureguizar, 2010; Kratcoski, 1985; Peek et al., 1985), offender (Kennedy et al., 2010), and clinical samples (Kageyama, Solomon & Yokoyama, 2016; Vaddadi et al., 1997). While these trends are consistent, the operationalization of relationship quality and the strength of the results vary. Disparities in the variables of interest and how they are operationalized make it difficult to draw conclusions about which aspects of the parent–child relationship increase the likelihood of CPA occurring. Moreover, although research regarding interpersonal predictors of intimate partner abuse is well established (O’Leary & Smith-Slep, 2003; O’Leary, K., Smith-Slep & O’Leary, S., 2007), there has been limited application of these models in CPA research. Interestingly, Ibabe and Bentler (2016) found that quality of family relationships had

both a direct and indirect effect on CPA perpetration, with quality being inversely related to a power-assertive discipline style that was positively related to CPA.

2.4.2 Parenting style.

The relationship between CPA and parenting style is complex, with some research finding no relationship in community samples (Agnew & Huguley, 1989; Calvete, Orue, Gamez-Guadix & Bushman, 2015; Peek et al., 1985). Other studies suggest that authoritarian parenting styles are related to CPA in community (Ibabe & Bentler, 2016; Ibabe et al., 2013b; Peek et al., 1985) and offender samples (Contreras & Cano, 2014a), and permissive parenting styles are related to CPA in community (Calvete et al., 2014; Ibabe et al., 2013a; Peek et al., 1985), clinical (Eckstein, 2004), and offender samples (Contreras & Cano, 2014a). However, as in the literature on family relationships, it may be more clinically and empirically useful to investigate the relationship between CPA and specific parenting techniques, or the quality of parent–child interactions, than to focus on broad parenting styles.

Pagani and colleagues (2004; 2009) found an interaction between parenting techniques and victim gender in predicting CPA in community samples. Higher rates of verbal punishment predicted verbal CPA against both parents, which suggested that there may be a modelling effect in which children learn from their parents that verbal aggression is an acceptable means to deal with conflict. However, the relationship between physical CPA, parent gender, and other parenting strategies was more convoluted. For instance, both verbal and physical punishment predicted physical CPA against mothers, but not fathers. Similarly, less parental supervision in community samples at 10–12 years of age predicted both physical and verbal CPA perpetrated at 15–16 years of age for mothers, but not fathers (Pagani et al., 2004; Pagani et al., 2009). In light of the previous discussion regarding age and father abuse, it is possible that punishment and supervision did not predict physical father abuse

because the participants in the current study were too young for a modelling effect to be seen. Alternatively, children may be less likely to assault their father due to the perceived danger of the father retaliating physically. The variation in the relationship between CPA and supervision may also relate to differing latent variables. Mothers tend to be the primary caregivers for their children in industrialized societies, which indicates that a lack of supervision by the mother may reflect broader problems with parenting than is represented by a lack of supervision by fathers. These variables would have differing impacts on the prediction of violent behaviors in youth.

Further complicating the relationship between CPA and parenting, a community study of Canadian university students found that positive parenting techniques (e.g., verbal rather than corporal discipline) were still risk factors for CPA if the parents were harsh or cold (Lyons et al., 2015). Indeed, a lack of parental warmth was related to CPA perpetration in both Spanish community (Calvete, Orue & Gámez-Guadix, 2015) and offender samples (Contreras & Cano, 2014b). Similar results were found in research examining the development of general antisocial behavior in youths (Dishion & Bullock, 2002; Pettit, Bates & Dodge, 1993). While further investigation is required, these findings suggest that it is the combination of the quality of the interaction and the nature of any disciplinary action that may be important for intervention and prevention.

Most recently, Ibabe and Bentler (2016) found that parents who inconsistently applied privilege withdrawal, monitoring, or aggressive discipline without justification or explanation in response to a child's inappropriate behavior experienced the greatest levels of CPA (both psychological and physical). This finding was somewhat novel, as the loss of privileges and monitoring of a child's behavior were found to be better predictors of CPA than aggressive discipline. Further, these results contrast with previous research that found parental supervision was inversely related

to CPA in community samples (Calvete et al., 2014; Pagani et al., 2004), or that there was no relationship between supervision and father-directed CPA once an overall pattern of violence was controlled for (Pagani et al., 2009). However, because a combined physical and psychological variable was used in this study, and because the gender of neither the perpetrator nor the victim was investigated, it is difficult to directly compare these results to previous research.

2.4.3 Exposure to family violence.

Within a nested ecological model of IPA, experiencing family violence is typically seen as a historical personal factor (Dutton, 1995). However, this review suggests that, in the context of CPA, it is best understood as a familial relationship factor because the violence occurs in the context of the ongoing familial relationship, rather than being restricted to the perpetrator's childhood.

Exposure to violence in the family of origin has consistently and positively been related to CPA perpetration across studies, with different methodologies and sample characteristics for community (Brezina, 1999; Calvete, Orue, Gamez-Guadix & Bushman, 2015; Cornell & Gelles, 1982; Hartz, 1995; Hendy, Burns, Can & Scherer, 2011; Herrera & McCloskey, 2003; Hotaling et al., 1989; Ibabe, 2014; Ibabe et al., 2013b; Livingston, 1986; Lyons et al., 2015; Margolin & Baucom, 2014; McCloskey & Lichter, 2003; Ulman & Straus, 2003), offender (Calvete, Orue, Gámez-Guadix, del Hoyo-Bilbao & de Arroyabe, 2015; Contreras & Cano, 2014a; Contreras & Cano, 2014b; Contreras & Cano, 2016a; Evans & Warren-Sohlberg, 1988; Ibabe et al., 2009; Kennedy et al., 2010; Kratcoski, 1985; Routt & Anderson, 2011), and clinical samples (Biehal, 2012; Boxer et al., 2009; Fawzi et al., 2013; Gallagher, 2004; Kolko et al., 1996; Langhinrichsen-Rohling & Neidig, 1995; Nock & Kazdin, 2002; Sheehan, 1997; Stewart, Burns & Leonard, 2007; Stewart, Wilkes, Jackson & Mannix, 2006). It is estimated that 50–80% of CPA perpetrators have been exposed to, or have

been targets of, family violence in community (Browne & Hamilton, 1998) and offender samples (Ibabe et al., 2009; Routt & Anderson, 2011). Further, exposure to violence may be related to a more frequent or enduring pattern of CPA. One study found that CPA targets who had been assaulted by another adult in front of their child experienced 78% more acts of CPA compared to targets of CPA who had not been assaulted in front of their child in community samples (Livingston, 1986). The severity of CPA was also found to be directly related to the severity of marital violence that the child witnessed, and the severity of abuse they experienced in community samples (Cornell & Gelles, 1982; Ibabe et al., 2013b). While there is an established relationship between family violence and CPA, the mechanisms by which family violence affects CPA are less well understood.

Some research suggests that the relationship between CPA and exposure to family violence may be mediated by gender, although studies examining this are few and the results inconsistent. Spanish research suggests that males who have been exposed to family violence present with greater levels of CPA than females, whereas there is gender symmetry among perpetrators who have not been exposed to family violence in community samples (Calvete, Orue, Gamez-Guadix & Bushman, 2015; Ibabe et al., 2013b). However, in a cross-sectional retrospective study of Canadian university students, no such gender differences were found for perpetrators in community samples (Lyons et al., 2015). Further research is needed to determine whether males and females process witnessing family violence as children differently.

Recent research suggests that exposure to family violence may be a strong predictor for mother abuse, but not father abuse in community samples (Lyons et al., 2015; Ulman & Straus, 2003). In a study of university students, different forms of family violence and parenting techniques were assessed to determine whether they predicted verbal or physical CPA in community samples (Lyons et al., 2015). Child-

to-mother abuse was predicted by the experience of psychological or physical aggression from both mothers and fathers, spanking by mothers, and witnessing physical IPA between caregivers. For every one-unit increase on the physical partner violence scale, the odds of physical CPA towards mothers increased 5.8 times. Comparatively, physical violence in family of origin failed to predict any form of child-to-father abuse. Hartz (1995) found that experiencing aggression from either parent was related to greater child-to-mother aggression, yet aggression from mothers failed to predict child-to-father abuse.

The most common explanation for the link between family violence and CPA is that the latter is modelled from the former through processes of social learning. This relationship was tested by Margolin and Baucom (2014), who investigated how the modelling of violent behavior predicted different forms of CPA. The results showed that witnessing father-to-mother aggression predicted verbal CPA. Comparatively, mother-to-adolescent aggression was a significant predictor of physical CPA and property damage. However, the modelling effect was only partially investigated, as child-to-mother and child-to-father abuse were collapsed into a single variable—despite potential gender interactions in the modelling effects.

The other common explanation for a link between parental violence and CPA is that CPA occurs directly in response to abuse of a child by a parent in clinical samples (Gallagher, 2004). Based on his finding that parent-to-child violence had a significant positive effect on CPA, but that child aggression had a significant negative effect on parent aggression, Brezina (1999) suggested that CPA may be used as a means to stop victimization by parents. This result remained after controlling for race, socio-economic status (SES), attachment, attitudes towards aggression, parental age, and size of youth. Margolin and Baucom (2014) investigated the same question, but examined the temporal relationship between being victimized by a parent and CPA.

Only past parental abuse was significant in predicting verbal CPA, while only current parental abuse was significant in predicting property damage CPA. Interestingly, when past and current parental violence were both entered into a regression, neither predicted physical CPA. This suggests that current parental abuse may mediate the relationship between past parental abuse and CPA. This leads to the hypothesis that verbal CPA may be a learnt behavior that is expressed regardless of current parental actions, whereas physical CPA may be a more reactive form of aggression that occurs in direct response to being aggressed. Supporting this proposition, Browne and Hamilton (1998) found that in their sample of 469 university students, 80% of physical CPA occurred in the immediate context of parental abuse. Taken together, these findings strongly suggest a significant reciprocal relationship between parent-to-child abuse and CPA.

Contreras and Cano (2016a) investigated the social-cognitive mechanisms by which family violence might increase the likelihood of CPA. They found that exposure to violence at home was related to feeling criticized or rejected by the mother, but this effect was not significant for the father. This supports the findings in community samples (discussed above) that rejection sensitivity and schemas increase the likelihood of CPA (Calvete, Orue, Gamez-Guadix & Bushman, 2015) and general aggressive behavior occurring (Jacobs & Harper, 2013). Interestingly, violence in the home was related to perceived rejection or criticism by the father rather than the mother for individuals who did not perpetrate CPA. As this study did not separate the type of violence being witnessed, or who was perpetrating the family violence, it is difficult to interpret the results in light of literature (discussed above) that highlights how gender affects the relationship between CPA and exposure to violence. However, Contreras and Cano (2016a) found that experiencing violence was related to greater negative perceptions and expectations of social relationships, which is associated with

the hostile attribution bias (Crick & Dodge, 1994) and, potentially, with rejection sensitivity. These findings highlight that exposure to violence can have an indirect effect on CPA by affecting social information processing and making an individual more vulnerable to violent behavior.

2.4.4 Situational antecedents of CPA.

There is a paucity of research that investigates the situational contexts in which CPA occurs—an oversight, given the evidence that aggression generally is contingent upon how individual factors interact with situational antecedents (Anderson and Bushman, 2002; Hamby & Grych, 2013). General aggression research has found that the behavior of others has perhaps the most direct situational influence on violence, with behavior that is perceived as hostile, provocative, or rejecting being a potential trigger for physical aggression (Hamby & Grych, 2013). Indeed, the little research that is available on situational factors associated with CPA in community (Kethineni, 2004; Stewart et al., 2006) and offender samples (Purcell et al., 2014) often cites verbal aggression between child and parent as a precursor for physical CPA. Typical topics of conflict include child substance use in community (Browne & Hamilton, 1998; Pagani et al., 2004) and offender samples (Purcell et al., 2014; Stewart et al., 2006), and enforcing house rules, lack of respect, and denial of privileges in community (Kethineni, 2004; Stewart et al., 2006) and offender samples (Purcell et al., 2014). Internal factors, such as feeling angry or in a bad mood are also commonly cited, which suggests a need for improved emotional regulation or expression in community (Kethineni, 2004; Stewart et al., 2006) and clinical samples (Nock & Kazdin, 2002). However, descriptive research investigating the situational antecedents of CPA has failed to examine the interaction of psychological and situational factors, other than to obviously state that it happens when parents and children disagree or are upset.

2.4.5 Summary of microsystem factors.

Although CPA invariably occurs in the context of familial relationships, there is relatively little research on familial factors affecting CPA. What few results are available suggest that the quality of familial relationships and family environment are related to CPA perpetration, with parental warmth (or lack thereof) being more important than overall parenting style, especially for child-to-father abuse. As with many personal factors, it appears that familial factors interact with the gender of the child and parent, particularly when considering the effect of exposure to family violence on CPA perpetration. While the likelihood of CPA increases in the context of violence or an argument, little is known about other situational antecedents of CPA. Although analysis of antecedents and consequences of intimate partner abuse is found throughout the literature, there has been insufficient research regarding the functions of CPA behavior.

2.5 Exosystem Factors Related to CPA

Exosystem factors are those that connect the perpetrator and victim to the wider community. These include demographic factors that interact with formal and informal structures in society, as well those that affect the groups, supports, and resources that people interact with or have available to them (Dutton, 1995). These factors are not necessarily static; yet, nor are they amenable to change at the individual level. Rather, interventions at this level tend to be large-scale social programs with benefits that are seen only in the long term.

2.5.1 Race or ethnic background and CPA perpetration.

Research regarding race and ethnicity has primarily been conducted in the US for community (Agnew & Huguley, 1989; Brezina, 1999; Elliott et al., 2011; Hartz, 1995; Paulson et al., 1990), offender (Evans & Warren-Sohlberg, 1988; Kennedy et al., 2010; Kethineni, 2004; Nowakowski & Mattern, 2014; Routt & Anderson, 2011;

Spillane-Grieco, 2000; Walsh & Krienert, 2007; Walsh & Krienert, 2009), and clinical samples (Charles, 1986; Laurent & Derry, 1999; Nock & Kazdin, 2002). Although some research from Commonwealth countries has described the racial profile of their samples—such as in community samples for Canada (Lyons et al., 2015), and offender samples for the UK (Miles & Condry, 2016; Sheehan, 1997), and Australia (Stewart et al., 2006)—the ethnic profile of CPA perpetrators internationally is largely unknown. Therefore, it is important to contextualize the following findings, paying attention to the cultural, demographic, and racial context of the culture in which the research originated.

Research has repeatedly found that White or northern European ethnicities are more likely to be the perpetrators and targets of CPA than people from other ethnic backgrounds in community (Agnew & Huguley, 1989; Brezina, 1999; Elliott et al., 2011; Hartz, 1995; Lyons et al., 2015; Paulson et al., 1990; Stewart et al., 2006), offender (Evans & Warren-Sohlberg, 1988; Kennedy et al., 2010; Kethineni, 2004; Miles & Condry, 2016; Routt & Anderson, 2011; Spillane-Grieco, 2000; Walsh & Krienert, 2007; Walsh & Krienert, 2009), and clinical samples (Charles, 1986; Nock & Kazdin, 2002; Sheehan, 1997). However, in offender samples, there appears to be an overrepresentation of Black or Afro-Caribbean perpetrators as compared to the demographics of British and American populations (Condry & Miles, 2014; Evans & Warren-Sohlberg, 1988; Routt & Anderson, 2011), and an underrepresentation of Asian-background perpetrators in offender samples (Routt & Anderson, 2011). Kennedy and colleagues (2010) compared offenders with CPA charges to those with other charges and found that, while there was an overrepresentation of Black offenders in the sample compared to the American population, CPA offenders were more likely to be White than non-CPA offenders in offender samples (Kennedy et al., 2010). This suggests that CPA is not restricted to any single ethnic group, but that the

overrepresentation of Black CPA offenders may reflect systemic discrimination in the justice system as a whole.

2.5.2 SES of families affected by CPA.

The relationship between socio-economic status (SES) and CPA is not well understood. There is evidence suggesting no relationship between CPA perpetration and SES in community (Brezina, 1999; Herrera & McCloskey, 2003; Paulson et al., 1990; Peek et al., 1985; Ulman & Straus, 2003) and clinical samples (Boxer et al., 2009; Fawzi et al., 2013; Ghanizadeh & Jafari, 2010). There is also evidence suggesting a negative relationship in community (Hotelling et al., 1989), offender (Condry & Miles, 2014; Routt & Anderson, 2011), and clinical samples (Kageyama, Solomon, Kita, et al., 2016), as well as a positive relationship between CPA and SES in community (Agnew & Huguley, 1989; Cornell & Gelles, 1982; Margolin & Baucom, 2014), offender (Evans & Warren-Sohlberg, 1988; Ibabe & Jaureguizar, 2010), and clinical samples (Nock & Kazdin, 2002)—albeit with a negligible effect size (Margolin & Baucom, 2014). Cornell and Gelles (1982) found that rates of severe violence were greatest in middle-income families, while moderate violence was greatest in low-income families. However, they noted that the relationship between CPA and income was weaker than the relationship between intimate partner abuse and income (where lower income predicts violence), or childhood conduct problems and low income (Bradley & Corwyn, 2002).

It is not surprising that research findings regarding CPA and SES are, at best, weak and often inconclusive. Many of the risk factors associated with CPA are also related to SES. As such, in models explaining CPA (e.g., antisocial behavior, substance use, exposure to family violence, and parenting style), there would be little unique variance in CPA accounted for by SES. Additionally, the racial profile of CPA offenders in the available literature may obscure the relationship between CPA and

SES. Previous research on intimate partner abuse has revealed an interaction effect between SES and race in the prediction of violence. One study of the relationship between race, SES, and intimate partner abuse (IPA) in the US found that SES (i.e., annual income) was related to IPA in Black couples. However, SES was not related to IPA perpetration in White couples (Cunradi, Caetano & Schafer, 2002). As the majority of CPA perpetrators in the research were from White or European backgrounds, this may partially explain why there was less of a relationship between SES and CPA than between SES and IPA.

Different methodologies further obscures the relationship between SES and CPA. For instance, many clinical studies had predominately middle-class clinical samples (Gallagher, 2004; Jackson, 2003; Weinblatt & Omer, 2008; Williams, Tuffin & Niland, 2016). Given that many lower SES families would face barriers (e.g., financial and time) that would prevent them from accessing clinical services, depending on the jurisdiction, it is understandable that there would be an overrepresentation of middle-class families in these studies.

2.5.3 Marital status of the victim.

While many CPA community (Agnew & Huguley, 1989; Pagani et al., 2003; Pagani et al., 2004; Pagani et al., 2009), offender (Contreras & Cano, 2014a; Contreras & Cano, 2014b; Ibabe & Jaureguizar, 2010; Ibabe et al., 2009; Kennedy et al., 2010; Purcell et al., 2014), and clinical samples (Biehal, 2012; Gallagher, 2004; Nowakowski & Mattern, 2014; Sheehan, 1997; Williams et al., 2016) report higher numbers of single-parent families than families with both biological parents, family structure does not appear to predict CPA for community (Agnew & Huguley, 1989; Elliott et al., 2011; Pagani et al., 2003; Pagani et al., 2004; Pagani et al., 2009) or clinical samples (Boxer et al., 2009; Nock & Kazdin, 2002). The relationship between CPA and family structure appears to be mediated by variables such as verbal or

corporal punishment, family involvement, and parental substance use for community samples (Pagani et al., 2004), tendency to externalize distress for clinical samples (Boxer et al., 2009), and family environment and social support seeking for community samples (Pagani et al., 2003). This suggests that it is not family structure per se, but rather environmental factors or coping strategies that might be more likely in single parent families, which increase the likelihood of CPA. This is particularly pertinent when interpreting clinical qualitative research (Gallagher, 2004; Williams et al., 2016) in which the majority of participants were single mothers. Single parents may not have the familial, emotional or physical support necessary to cope with their children's behavior, making them more inclined to seek external support.

2.5.4 School attachment.

School attachment has been identified as a protective factor against CPA, similar to research that investigated general delinquency (Cochran, Wareham, Wood & Arneklev, 2002; Gottfredson and Hirschi, 1990). CPA perpetrators had higher rates of learning difficulties in community (Agnew & Huguley, 1989; Ibabe et al., 2013a), offender (Ibabe & Jaureguizar, 2010; Ibabe et al., 2009; Kennedy et al., 2010; Nowakowski & Mattern, 2014), and clinical samples (Biehal, 2012; Laurent & Derry, 1999); a greater aversion to school authority and discipline in offender samples (Ibabe et al., 2014; Routt & Anderson, 2011); and a lack of engagement in community (Ibabe, 2016), offender (Paulson et al., 1990) and clinical samples (Sheehan, 1997). However, while Agnew and Huguley (1989) found that school attachment was inversely related to CPA, it was not a significant predictor; this suggests that the relational factors and deviant beliefs that were included in the multivariate model had greater predictive power.

2.5.5 Summary of exosystem factors related to CPA.

There is limited research regarding community-level factors that are related to CPA. CPA perpetration is not bound to one ethnic group or SES, although there appears to be an overrepresentation of Black youth in offender samples in the US. This likely reflects systemic issues in the criminal justice system, rather than an issue specific to CPA. The most meaningful finding in this area is possibly the consistent overrepresentation of single parents, specifically mothers, in CPA samples. However, it does not appear that it is the relationship status itself that leads to CPA. Rather, the lack of support and coping resources available to single mothers may increase a range of familial and relationship risk factors (microsystem factors) that are, in turn, associated with an increased risk of CPA. This is a potential area for further research, with implications for both prevention and intervention.

The limited research investigating factors that protect against the development of CPA has focused on community-level factors. While factors such as religiosity in community samples (Paulson et al., 1990; Peek et al., 1985), and school attachment in community (Agnew & Huguley, 1989) and offender samples (Ibabe et al., 2014; Paulson et al., 1990), were inversely related to CPA perpetration, it appears that they had a limited protective effect when other risk factors were also taken into account.

2.6 Macrosystem Factors Related to CPA

Despite 60-years of research, there is yet to be any investigation of cross-cultural differences or patterns in CPA.

2.7 Summary of CPA Literature

Figure 2.2 provides a summary of this review of CPA literature. As can be seen, most research has focused on perpetrators' personal factors related to CPA, rather than the relationship dynamics between parents and children, or cultural and societal factors. Figure 2.2 also highlights the variability in CPA findings according to gender at the personal and familial level. With the exception of gender, research has

failed to explore how various levels of the nested ecological model interact with each other, which is contrary to theoretical literature contending that integrated frameworks provide better explanations of behavior than single-factor theories (e.g., Bronfenbrenner, 1979; Dutton, 1995; DeWall, Anderson & Bushman, 2011; Finkel & Slotter, 2009; Hamby & Grych, 2013; Ward et al., 2006).

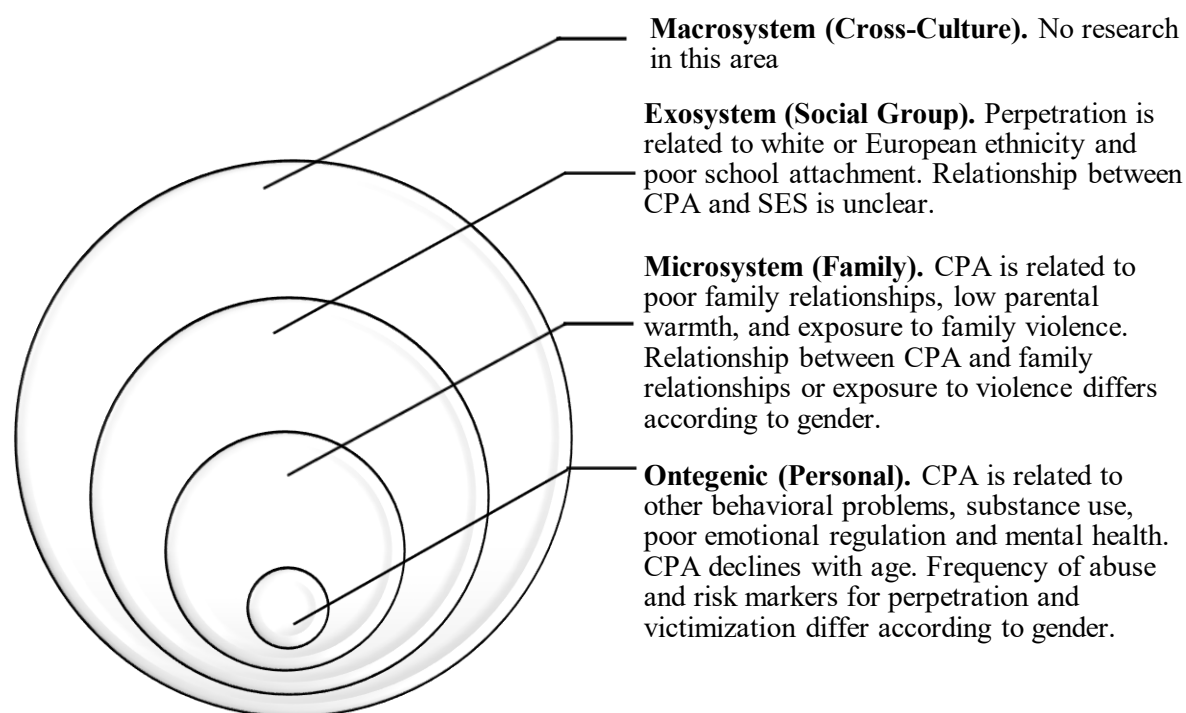


Figure 2.2. Summary of findings in the literature, separated by level of ecological model.

2.8 Future Directions for CPA Research

CPA remains one of the least understood forms of family violence, although there is burgeoning interest in the behavior. Despite a recent increase in descriptive research, there has been relatively little progression in the understanding of causes and theory development since CPA was first described in 1957. It is imperative that future research be conducted with the goal of advancing the field, rather than simply reporting the existence of the phenomenon. This review has attempted to contribute to the field by providing a comprehensive and critical review of the extant literature, and identifying empirical gaps and areas for future research. This section outlines a number

of research questions (which are summarized in Table 2.1) arising from the review that need to be addressed to more fully describe the phenomenon of CPA. Only by improving the observation and description of the phenomenon can an evidence-based theoretical framework to explain CPA be developed: a framework that both draws on knowledge from other areas of aggression research and highlights elements unique to CPA. Such a theory can, in turn, be used to predict future adverse outcomes and inform prevention and intervention strategies.

2.9 Future Directions for Research Observing and Describing CPA

2.9.1 Ontogenetic or individual factors.

CPA literature should advance beyond simply describing sample characteristics to investigating how demographics influence the relationship between risk markers and perpetration. Although community research has found gender symmetry among perpetrators, gender differences in clinical and offender samples suggest differing trajectories, pathways, and perceptions of perpetration according to gender. Indeed, the limited community research investigating gendered models of perpetration have found variability in the role of substance use, emotional, and cognitive factors (Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Calvete, Orue & Gámez-Guadix, 2015; Ibabe et al., 2013a; Ibabe et al., 2013b). As such, future research needs to be gender-sensitive for both perpetrators and targets to strengthen understanding of the pathways to CPA.

Additionally, the majority of identified personal risk factors found in the research were static or distal, which limited their usefulness for prevention and intervention strategies. The few dynamic factors that have been investigated are difficult to change without consideration of the context in which they were developed and expressed (e.g., family, social group, and culture). Recently, CPA literature has begun to observe and describe CPA in a more nuanced and theoretical manner by

investigating whether social-cognitive theory can be applied to the phenomenon of CPA, such as for offender samples (Contreras & Cano, 2015; Contreras & Cano, 2016b). Future research should replicate and expand upon this approach by observing the psychological mechanisms related to perpetration, as well as how they interact with clinical features (e.g., substance use or mental illness) to increase or decrease the likelihood of perpetration. Further, understanding these psychological mechanisms may provide insight into why CPA predicts abusive behavior in other relationships, such as for community (Darling, Cohan, Burns & Thompson, 2008; Hendy et al., 2011) and offender samples (Kratcoski, 1985). It is possible, perhaps even likely, that CPA and other forms of family violence share core social-cognitive processes, which signifies that identifying CPA presents an opportunity for preventing other forms of later relationship violence (Hamby & Grych, 2013).

Understanding CPA has also been hindered by the narrow focus on children in a legal sense (i.e., under the age of 18 years), rather than children in a relational sense. This focus is arbitrary and illogical, given that many youths still reside with their parents even after they have become legal adults. Further, if abuse is conceptualized as a function of a relationship pattern, it is not necessary for two parties to live together for abuse to occur, such as teen dating violence (Hamby & Turner, 2013). Therefore, future research would be remiss to limit the investigation of CPA to those under the age of 18 years, especially considering that the available community (Peek et al., 1985) and offender research (Snyder & McCurley, 2008) suggests that risk factors and patterns of abuse may evolve with age. Future research should investigate whether there are unique trajectories of CPA (e.g., AL and LCP) that differ in their risk factors and future consequences, as suggested by literature on general antisocial behavior (Moffitt, 1994).

2.9.2 Microsystem or family-level factors.

While there has been some investigation into parenting style or technique in CPA literature, these variables mean little when vaguely defined or examined in isolation. Further investigation is needed on specific parenting behaviors and relationship quality, as well as how these characteristics interact with age and relationship expectations across developmental milestones. As the parent–child relationship is dynamic, particularly across developmental periods, researchers should acknowledge and integrate this into more sophisticated longitudinal designs. In addition to age, the gender of parents may influence whether parenting behavior or the quality of the parenting relationship may prevent or promote CPA. For instance, poor supervision may be a proxy for distant parenting, which is related to CPA for mothers but not fathers in community samples (Pagani et al., 2004; Pagani et al., 2009). Given that mothers remain the primary caregivers for children in industrialized societies (Brickdale, 2015; Marshall, 2006; Ornstein & Stalker, 2013), a lack of maternal supervision may be more indicative of distant parenting than poor paternal supervision. Additionally, the interaction between genders may promote or prevent CPA, as differences exist in socialization, modelling, and relationship quality according to gender in the parent–child relationship (Craig, 2006; Hoeve et al., 2009).

While better understanding of parenting behaviors may provide some insight into the development of CPA, the narrow focus on one party in the relationship means that the contribution of interpersonal and interactive factors is ignored. By examining the pattern of behavior between an abusive child and parent, researchers and service providers may gain an understanding of the function of the behavior, how it is triggered, and why it is reinforced. Although priority has been given to understanding the situational context in which other forms of violence occur (Anderson & Bushman, 2002), this approach is yet to be applied to CPA. Understanding patterns of behavior and situational antecedents may not only be helpful for intervening in the current

behavior, but also in preventing future behavior. Importantly, victim vulnerabilities (e.g., intoxication, unwillingness to seek help, and proximity to perpetrator) should be considered when understanding the pattern of abusive behavior in the relationship, as these factors have the potential to reinforce or escalate conflict and have been found to be beneficial for the risk assessment and prediction of other forms of family violence (Belfrage & Strand, 2008; Kropp & Hart, 2016; Kuijpers, van der Knaap & Winkel, 2012). Further, it would be useful to investigate whether gender differences in parental victimization could be explained by the situational factor of proximity to perpetrators, as mothers typically spend more time with their children or more time disciplining their children (Craig, 2006), which increases the opportunity for abuse, as compared to fathers.

Another area in need of research to inform prevention and intervention is how and why some children desist from CPA while others appear to persist into adulthood. Research in offender samples (Strom et al., 2014) suggests that the frequency of CPA decreases in early adulthood. However, there is no research examining whether maturation milestones (e.g., aging out of abuse, when the perpetrator leaves the family home), external intervention (e.g., therapy and police action), changes in family dynamics (e.g., familial breakdown, change in conflict tactics, and avoidance behaviors), or some combination of these factors play a role in stopping abuse. Understanding the life-course of CPA is an important step in understanding and describing the behavior as part of a pattern of relationship behavior, rather than only as independent incidents of aggression. More generally, there is limited empirical research regarding the impact of abuse on the family system, which includes how family members conceptualize, cope with, and adjust following abuse. Research also has yet to consider the effects of CPA on other children in the family.

2.9.3 Exosystem or social group factors.

Research on exosystem risk factors has so far been limited to descriptive statistics regarding the presence of risk factors, rather than explaining or testing the mechanisms by which the exosystem affects perpetration of CPA. While individuals who perpetrate CPA are more likely to have antisocial associates, it is unclear whether the associates encourage CPA, general violence, or simply support antisocial lifestyles, including CPA. There has been no investigation of social norms or discourses surrounding CPA, which complicates understandings of what is normative adolescent behavior and what is abuse, and how parents should deal with such behavior. Further research is needed to understand how CPA is justified or explained in social groups, and which social groups or communities have greater and lesser rates of CPA (when controlling for variables such as SES).

2.9.4 Macrosystem or cross-cultural factors.

While there has been some investigation into historical accounts of CPA in Finnish cultures (Toivo, 2016), little is known about how patterns of CPA differ between cultures. Cultural factors (e.g., whether authoritative parenting styles are favored, the role and rights of women, and age at which children marry or move out of home) arguably affect the frequency and pattern of CPA, as well as perpetrator profiles—although there are no studies addressing this. Some research highlights an increase in police-recorded CPA (Ministerio de Justicia [Ministry of Justice], 2012 as cited in Calvete, Gamez-Guadix, Orue, et al., 2013). Although some research found that victims of CPA experience shame or blame when reporting CPA to police—such as in clinical samples (Gallagher, 2004; Hsu & Tu, 2014)—service providers, or support networks, the kinds of social or cultural factors that influence reporting are unknown. This information is important when interpreting research using police data, as well as in preventing, detecting and intervening in ongoing CPA.

2.10 Moving from Describing to Explaining the Phenomenon

Research on CPA has yet to advance past the first stage of the scientific method—making observations. To move forward, researchers must begin to test hypotheses about the mechanisms that produce CPA in different contexts. Modern explanations for violent and aggressive behavior recognize that etiological factors interact with each other in different ways to produce different kinds of aggression in different circumstances (see Dodge & Pettit, 2003; Hamby & Grych, 2013). As such, a theoretical model of CPA is needed that both suggests different pathways to CPA and allows for consistent and principled hypothesis generation. Based on the limited evidence already available, such a theory would need to explain individual emotional and cognitive processes in the context of interpersonal relationships, and family and social systems, while considering situational factors that trigger CPA. The theory would need to be gender-sensitive, as different factors likely play a role in pathways to perpetration for males and females.

The design of such a theory could draw heavily on and integrate existing theories of aggression, parenting, families, and relationships, such as the general aggression model (Anderson & Bushman, 2002), family systems theory (Bowen, 1978), interpersonal theory (Sullivan, 1953), and I³ theory (Slotter & Finkel, 2011). This would provide the advantage of building on substantial bodies of existing knowledge and research design, and also of recognizing the inherent similarity in many different types of interpersonal violence (Hamby & Grych, 2013). Moreover, it would provide a structure with which to theorize and test where factors that underlie and contribute to CPA might differ from those contributing to other kinds of family violence.

2.10.1 Defining who and what is abusive.

Key to further describing CPA, developing theory, and building a literature that can inform prevention and intervention is being able to measure the phenomenon in a reliable, comparable, and culturally appropriate way that takes the overall pattern of abuse into account. To do this, both the frequency and severity of abusive behavior must be considered when defining who and what is abusive. To date, researchers have struggled to differentiate between minor and isolated acts of aggression, and severe and persistent patterns of abuse. Rather than labeling single acts of aggression (e.g., yelling at a parent) as abuse, there should be a greater emphasis on investigating patterns of abuse in a relationship, which is more congruent with definitions of CPA that describe a pattern of repeated behavior (Holt, 2013). Very few studies have taken the severity of specific aggressive acts or overall duration of behavior into consideration when operationalizing CPA (e.g., Brezina, 1999). However, studies that do differentiate between trivial and more severe acts of physical aggression have found that females perpetrate more minor physical aggression than males, and that these acts affect the overall rate of CPA perpetration identified in community samples (Agnew & Huguley, 1989; Brezina, 1999). Using overly inclusive definitions that incorporate trivial verbal aggression obscures true rates of CPA perpetration and hinders the ability to detect risk factors for abuse.

2.11 Conclusion

In the 60 years since the first scientific study of CPA, our understanding of what it looks like and why it occurs remains fragmented and poorly developed. This is largely due to a weak theoretical foundation for much of the existing research, limited consideration of the multiple determinants of aggressive behavior, and the use of operational variables that do not reflect theoretical constructs. Future research should be theoretically driven, drawing on the sizable bodies of existing research into aggression in other contexts and investigating what is unique to CPA. Defining and

measuring abuse in a consistent way and examining how factors interact to produce CPA is key to preventing it from occurring. Future research must be gender-sensitive and focus on the relationship between perpetrator and target, rather than arbitrary age-related boundaries on perpetration. Table 2.1 presents a range of specific research questions that directly address identified gaps in current CPA knowledge: questions that must be answered to effectively prevent, detect, and intervene in cases of CPA.

Table 2.1

Research Questions Addressing Gaps in Knowledge in the Various Levels of the Nested Ecological Model

Factor	Research Question
Ontogenetic or personal factors	1.1 What are the psychological mechanisms that contribute to CPA at an individual level (e.g. impulsivity, emotionality, aggression-related cognitive, rumination)?
	1.2 How do clinical factors (e.g., substance use, mental illness) interact with personality-related mechanisms?
	1.2.1 How do these mechanisms differ depending on the gender of the CPA perpetrator?
	1.3 What is the relationship between age and CPA perpetration?
	1.4 What are the (and are there) individual differences between adolescent limited CPA and persistent CPA?
	1.4.1 Can CPA begin in adulthood?
	1.5 What is the relationship between CPA and broader antisocial behavior?
	1.5.1 Can CPA exist without a broader pattern of antisocial behavior?
	1.6 How does CPA relate to future intimate partner abuse perpetration and perpetration of other forms of family violence?
Microsystem of family-level factors	2.1 What are the key features of parenting behaviors and relationship qualities that are associated with CPA?
	2.1.1 How do these factors interact with age?
	2.1.2 How does gender interact with the parent–child relationship and roles in families with CPA?
	2.2 What are the functions of CPA?

Factor	Research Question
	2.2.1 What are the situational triggers (e.g. other violence, conflict, substance use) of CPA?
	2.2.2 What consequences promote continued CPA vs. desistance from CPA?
	2.3 What victim vulnerabilities are associated with increased risk of experiencing CPA?
	2.3.1 How does proximity to target affect occurrence of CPA?
	2.4 What relationship schemas and other knowledge structures are related to CPA perpetration?
	2.5 What is the relationship between CPA and other forms of violence in the family?
	2.6 How do families cope with CPA?
	2.6.1 What familial changes (e.g., change in family dynamic, family structure, external intervention, change in proximity) lead to desistance of abuse?
	2.6.2 How does CPA affect other relationships in the family (e.g., increase violence, stress, hostility)?
	2.7 What microsystem factors are protective against CPA?
Exosystem or social group factors	3.1 How are antisocial associates (e.g., parents, peers, siblings) related to CPA perpetration?
	3.2 How is support for violence in social groups related to CPA?
	3.3 Are there social norms around CPA? What are they?
	3.4 Are there social groups or communities where CPA happens more or less (controlling for SES)?
	3.5 What exosystem factors are protective against CPA?
Macrosystem or cross-cultural factors	4.1 Are there patterns in CPA perpetration over time?
	4.2 What cultural factors affect the likelihood to report CPA to police or service providers?
	4.3 What are the characteristics of cultures where CPA is seen to exist?
	4.3.1. How do they differ from cultures where CPA is not evident or recognized as a phenomenon?

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Appendix 2.1

Appendix 2.1 describes the 84 studies involved in the review and the methodologies of each study. The duration of the study (i.e., cross-sectional or longitudinal) is described in the research design section. Some studies are listed as retrospective, such cases typically involve police data collected over a period of time or participants who were asked to reflect on their behaviour at a specific time point in the past (i.e., university students describing their behaviour at 10-years old). The research design is described as either between groups, within groups, matched pairs, or descriptive. Finally, how CPA was ascertained is noted (i.e., Single Question / Interview/ Conflict Tactics Scale/ Offence History/ CPA-Specific Questionnaire/ Focus Group/ Qualitative Survey/ Clinician notes/ Enrolled in CPA treatment).

Authors	Sample Type	Loc.	N	Sample	Research design and method of ascertaining CPA	Variables investigated in CPA research that correspond to review subheadings													
						Gender	Age	Antisociality	Cognitive & emotional factors	Mental illness	Substance use	Family relationships	Parenting style	Family violence	Antecedents	Race /ethnicity	SES	Parents' marital status	School problems
Agnew & Huguley, 1989	Com.	U.S.A.	1,960	11-18 y/o	Cross-sectional Between Groups Single question – Physical CPA	x	x				x	x	x			x	x	x	x

Com = Community sample; Clin = Clinical sample; Off = Offender sample; U.S.A. = United States of America; U.K. = United Kingdom; Aus = Australia; S.A. = South Africa; y/o = year old; yr = year; w/ = with; ADHD = Attention Deficit Hyperactive Disorder; CPA = Child-to-parent abuse; Qual. = Qualitative; CTS= Conflict Tactics Scale; SES= Socioeconomic Status

						Variables investigated in CPA research that correspond to review subheadings													
						Gender	Age	Antisociality	Cognitive & emotional factors	Mental illness	Substance use	Family relationships	Parenting style	Family violence	Antecedents	Race /ethnicity	SES	Parents' marital status	School problems
Authors	Sample Type	Loc.	N	Sample	Research design and method of ascertaining CPA														
Biehal, 2012	Clin.	U.K.	209	11-16 y/o receiving family support	Cross-sectional Descriptive Qualitative Interview	x		x			x		x					x	x
Boxer et al., 2009	Clin.	U.S.A.	232	11-18 y/o & their mothers	Cross-sectional Between Groups CTS – physical Completed by mothers	x					x				x		x		
Brezina, 1999	Com.	U.S.A.	1,886	10 th grade male students	1.5yr longitudinal Between Groups Single question – Physical CPA								x		x		x		
Browne & Hamilton, 1998	Com.	U.K.	469	1 st -3 rd year university students	Cross-sectional Between Groups CTS	x	x												
Calvete, Gamez-Guadix & Garcia-Salvador, 2015	Com.	Spain	1,272 +421	13-17y/o students +their mothers	1yr longitudinal CPA-specific questionnaire	x			x	x									

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						Gender	Age	Antisociality	Cognitive & emotional factors	Mental illness	Substance use	Family relationships	Parenting style	Family violence	Antecedents	Race /ethnicity	SES	Parents' marital status	School problems
Authors	Sample Type	Loc.	N	Sample	Research design and method of ascertaining CPA														
Calvete, Gamez-Guadix, Orue, et al., 2013	Com.	Spain	2,719	13-18 y/o students	Cross-sectional Between Groups CPA-specific questionnaire	x					x					x			
Calvete et al., 2014	Clin.	Spain	11 +5 +5	Parents of abusive adolescents +Abusive adolescents +Service providers	Cross-sectional Qualitative Focus Groups				x		x		x			x			
Calvete, Orue & Gámez-Guadix, 2013	Com.	Spain	1,072	13-17 y/o students	0.5yr longitudinal Between Groups CTS – verbal & physical	x				x	x					x			
Calvete, Orue & Gámez-Guadix, 2015	Com.	Spain	981	13-17 y/o students	1.5yr longitudinal Between Groups CPA-specific questionnaire	x					x								

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Calvete, Orue, Gamez-Guadix & Bushman, 2015	Com.	Spain	591	12-17 y/o students & a parent	3yr longitudinal Between Groups CPA-specific questionnaire	x			x			x	x	x					
Calvete, Orue, Gámez-Guadix, del Hoyo-Bilbao & de Arroyabe, 2015	Off.	Spain	15	14-17 y/o young offenders & a parent	Cross-sectional Qualitative Interviews														
Charles, 1986	Clin.	U.S.A.	50	<18 y/o abusive in- & out-psychiatric patients	Retrospective File review Within-group Qualitative											x			

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Condry & Miles, 2014	Off.	U.K.	1892	13-19 y/o	Retrospective File review- 1 yr of police reports Descriptive Offence history	x	x									x	x		
Contreras & Cano, 2014a	Off.	Spain	654	Young offenders 48- CPA offenders 606- Other offenders	Retrospective File review from 2001-2010 Between Groups Offence history			x			x	x	x	x			x	x	
Contreras & Cano, 2014b	Off.	Spain	90	30- CPA offenders; 30- non-CPA offenders 30- students	Cross-sectional Between groups Offence history	x						x	x				x	x	
Contreras & Cano, 2015	Off.	Spain	90	30- CPA offenders; 30- non-CPA offenders 30- students	Cross-sectional Between groups Offence history			x		x	x	x		x					

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Contreras & Cano, 2016a	Off.	Spain	90	30- CPA offenders; 30- non-CPA offenders 30- students	Cross-sectional Between groups Offence history				x					x					
Contreras & Cano, 2016b	Off.	Spain	60	30 CPA offenders; 30 non-CPA offenders	Cross-sectional Between groups Offence history			x	x										
Cornell & Gelles; 1982	Com.	U.S.A.	608	One parent of a 10-17 y/o	Cross-sectional Between groups CTS - physical	x								x			x		
Cottrell & Monk, 2004	Clin.	Canada	100	52 abused parents; 44 abusive youth; 55 service providers	25 participants – 1yr longitudinal Remaining – Cross-sectional Qualitative Interviews & focus groups	x													

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De Lange & Olivier, 2004	Clin.	S.A.	7	Mothers of children w/ Tourette's	Cross-sectional Descriptive Qualitative Interview	x				x									
Eckstein, 2004	Clin.	U.S.A.	20	Parents abused by 10-17 y/os	Cross-sectional Descriptive Qualitative Interviews		x						x						
Edenborough et al., 2008	Com.	Aus.	185	Mothers abused by 10-24 y/o	Cross-sectional Descriptive Qualitative survey	x													
Elliott et al., 2011	Com.	U.S.A.	2,004	11-18 y/o	Cross-sectional Between Groups Single question – Physical CPA	x			x							x		x	
Estroff et al., 1998	Clin.	U.S.A.	169	18-35 y/o with severe psychiatric disorders	2.5yr longitudinal cohort study Descriptive Interviews	x				x	x								

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Evans & Warren-Sohlberg, 1988	Off.	U.S.A.	73	12-17y/o	Retrospective File review- CPA police reports over 2.5 yrs Descriptive Offence history	x	x							x		x	x		
Fawzi et al., 2013	Clin.	Egypt	150	13-19 y/o 1st episode psychosis in-patients	Cross-sectional Between groups Interviews w/ child & parent	x	x			x				x			x		
Gallagher, 2004	Clin.	Aus.	77	Parents & their children seeking help for CPA	Retrospective Case study & file review Descriptive Enrolled in CPA treatment	x								x			x	x	
Gebo, 2007	Off.	U.S.A.	72	Youth detained for family violence (62% CPA)	Retrospective File review Descriptive Offence history	x													

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Ghanizadeh & Jafari, 2010	Clin.	Iran	74	5-14 y/o w/ ADHD at out-patient clinic	Cross-sectional Between Groups CPA-specific questionnaire	x				x									
Hartz, 1995	Com.	U.S.A.	96	11 & 12 th grade students	Cross-sectional Between groups CTS	x								x		x			
Hendy et al., 2011	Com.	U.S.A.	377	University students	Cross-sectional Between groups CTS – physical									x					
Herrera & McCloskey, 2003	Com.	U.S.A.	141	Daughters 6-12 y/o & mothers	6-yr longitudinal Between groups Interviews with mother & child + Three questions – physical CPA			x						x			x		
Hotaling et al., 1989	Com.	U.S.A.	334 1,092 2,688	6+ y/o A student survey & 2 national surveys	Cross-sectional Between groups CTS	x								x			x		

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Hsu & Tu, 2014	Clin.	Taiwan	14	20+ y/o in-patients w/ Schizophrenia & a parent	Cross-sectional Descriptive Qualitative Interview					x									
Ibabe, 2014a	Com.	Spain	485	12-18 y/o students	Cross-sectional Between groups CPA- specific questionnaire		x	x	x					x					
Ibabe, 2016	Com.	Spain	584	12-18 y/o students	Cross-sectional Between groups CTS							x							x
Ibabe & Bentler, 2016	Com.	Spain	585	12-18 y/o students	Cross-sectional Between groups CTS	x	x					x							
Ibabe & Jaureguizar, 2010	Off.	Spain	103	Young offenders: 35- CPA 40- non CPA 33- CPA & other crime	Cross-sectional Between groups Offence history	x			x	x	x	x							

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Ibabe et al., 2014	Off.	Spain	231	14-18 y/o 59- CPA offenders 47- non CPA offenders 125- students	Cross-sectional Between groups CPA- specific questionnaire	x		x		x	x	x							x
Ibabe et al., 2013a	Com.	Spain	687	12-16 y/o students	Cross-sectional Between groups CPA- specific questionnaire	x		x				x	x						x
Ibabe et al., 2013b	Com.	Spain	485	12-18 y/o students	Cross-sectional Between groups CPA- specific questionnaire	x			x		x	x	x	x			x	x	x
Ibabe et al., 2009	Off.	Spain	103	Young offenders: 35- CPA 35- non CPA 33- CPA & other crime	Cross-sectional Between groups Offence history	x			x	x	x			x				x	x

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Jackson, 2003	Clin.	Aus.	6	Mothers w/ children 17+ y/o	Cross-sectional Descriptive Qualitative Interview						x						x		
Jaureguizar et al., 2013	Com.	Spain	687	12-16y/o students	Cross-sectional Between groups CPA- specific questionnaire	x		x				x							
Kageyama, Solomon & Yokoyama, 2016	Clin.	Japan	400	Parents of adults w/ Schizophrenia	Cross-sectional Between groups Study specific questionnaire- physical	x				x		x							
Kageyama, Solomon, Kita, et al., 2016	Clin.	Japan	379	Parents of adults w/ Schizophrenia	Cross-sectional Descriptive Study specific questionnaire					x							x		
Kageyama et al., 2015	Clin.	Japan	302	Carers of adults w/ Schizophrenia	Cross-sectional Descriptive Study specific questionnaire	x				x									

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Kennedy et al., 2010	Off.	U.S.A.	211	Youth offenders 100- CPA 111- no CPA	Cross-sectional Between groups Psychological testing, interview, & file review	x		x		x		x		x			x		x
Kethineni, 2004	Off.	U.S.A.	83	Young CPA offenders charged w/ a CPA offence	Retrospective File review Descriptive Offence history	x	x	x		x	x				x	x			
Kolko et al., 1996	Clin.	U.S.A.	323	6-13 y/o & parent 118- outpatient 205- non clinical	2yr longitudinal Between groups Parent & child interviewed + CTS	x								x					
Kratcoski, 1985	Com.	U.S.A.	295	148 - 11-12 th grade students 147 – youth offenders	Cross-sectional Between groups Study specific questionnaire							x		x					
Langhinrichsen-Rohling	Com.	U.S.A.	474	Job Corps youth (i.e., low income a-risk)	Cross-sectional Between groups CTS									x					

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& Neidig, 1995 Laurent & Derry, 1999	Clin.	France	22	10-17 y/o psychiatric inpatients 645 records over 9 yrs searched – 22 CPA cases	Retrospective File review Descriptive Physical CPA as noted by clinician	x				x						x			x
Livingston, 1986	Com.	U.S.A.	151	Single mothers	Cross-sectional Between groups CTS- physical									x					
Lyons et al., 2015	Com.	Canada	365	University students reported their experiences & behaviour at 10 y/o	Retrospective Between groups CTS	x						x	x	x		x			
Margolin & Baucom, 2014	Com.	U.S.A.	93	9-10 y/o youth & both parents	8yr longitudinal Between groups Study specific questionnaire	x			x					x			x		

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McCloskey & Lichter, 2003	Com.	U.S.A.	384	Mother- child (6-12y/o) dyads 234- IPA victims 150- controls	8yr longitudinal Between groups Study specific questionnaire - physical	x	x		x					x					
Miles & Condry, 2016	Off.	U.K.	100	100 CPA police reports of 13-19 y/o	Retrospective File review Offence history	x										x			
Nock & Kazdin, 2002	Clin.	U.S.A.	606	2-14 y/o out-patients at problem conduct clinic	Cross-sectional Between groups Study specific questionnaire – physical	x			x	x		x		x	x	x	x	x	
Nowakowski & Matter, 2014	Off.	U.S.A.	209	10-19 y/o referred for intervention program in 2009	Retrospective File Review Descriptives Offence history	x		x			x					x		x	x
Pagani et al., 2003	Com.	Canada	778	15-16 y/o (at time of CPA assessment) & mothers	9-yr longitudinal cohort study – 1 st wave at 6 y/o Between groups Study specific questionnaire	x		x										x	

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Pagani et al., 2004	Com.	Canada	1175	15-16 y/o (at time of CPA assessment) & mothers	9-yr longitudinal cohort study – 1 st wave at 6 y/o Between groups Study specific questionnaire	x		x			x		x		x			x	
Pagani et al., 2009	Com.	Canada	774	15-16 y/o (at time of CPA assessment) & fathers	9-yr longitudinal cohort study – 1 st wave at 6 y/o Between groups Study specific questionnaire	x		x			x		x					x	
Paulson et al., 1990	Com.	U.S.A.	445	9-17 y/o & a parent	5-yr longitudinal Between groups Single question – physical	x			x			x				x	x		x
Peek et al., 1985	Com.	U.S.A.	1,545	10 th grade male students	3yr longitudinal Between groups Single question – physical	x	x					x	x				x		

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Purcell et al., 2014	Off.	Aus.	438	12-17 y/o w/ intervention orders against them	Retrospective File review Descriptive Offence history	x		x		x					x			x	
Routt & Anderson, 2011	Off.	U.S.A.	1,339 +268	Youth with CPA charges from 2001-2004 + Youth in intervention program	Retrospective File review Offence history + Cross-sectional Descriptive Interviews	x		x		x				x		x	x		x
Selwyn & Meaking, 2016	Com.	U.K.	62	Parents who adopted a child between 2002-2004 who was abusive	Cross-sectional Descriptive Qualitative Interviews	x													
Sheehan, 1997	Clin.	Aus	60	11-25 y/o in intervention program	Retrospective File review Enrolled in CPA program		x	x		x	x			x		x		x	x

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Snyder & McCurley, 2008	Off.	U.S.A.	863,481	Police reports from 2004 of all domestic assaults in 30 states	Retrospective File review Between groups Offence history	x	x	x											
Spillane-Grieco, 2000	Off.	U.S.A.	50	25 – young offenders or youth in foster care 25 – youth from same county	Cross-sectional Matched pairs CTS			x								x			
Stewart et al., 2007	Clin.	Aus.	60	Mothers of adolescent or adult children	5-yr longitudinal Between groups Qualitative Interviews									x					
Stewart et al., 2006	Com.	Aus.	91	Mothers of abusive children 10-24 y/o	Cross-sectional Descriptive Qualitative Interviews									x	x	x			
Strom et al., 2014	Off.	U.S.A.	54,197	CPA police reports of 12-17 y/o in 27 states	Retrospective File review Descriptive Offence history	x	x												

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Ulman & Straus, 2003	Com.	U.S.A.	1,023	Couples w/ a child 3-17 y/o	5-yr longitudinal Between groups CTS – physical	x	x	x						x			x		
Vaddadi et al., 1997	Clin.	Aus.	101 +101	18-59 y/o acute psychiatric patients & a familial carer they live with +community mental health patients	Cross-sectional Between groups Interviews Study specific questionnaire-physical only		x			x		x							
Vaddadi et al., 2002	Clin.	Aus.	101	18-54 y/o acute psychiatric patients & primary carer	Cross-sectional Descriptive Interviews Study specific questionnaire-physical only		x			x		x							

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Walsh & Krienert, 2007	Off.	U.S.A.	17,957	Youth ≤ 21 y/o reported to police for CPA in 23 states in 2002	Retrospective File review Descriptive Offence history	x	x									x			
Walsh & Krienert, 2009	Off.	U.S.A.	108,231 +79	Youth 7-21 y/o reported to police 1995-2005 - CPA offenders - Parricide offenders	Retrospective File review Descriptive Offence history	x	x									x			
Weinblatt & Omer, 2008	Clin.	Israel	73	Parents from 41 families of abusive 4-17 y/o	Cross-sectional Descriptive Qualitative interviews			x									x		
Williams et al., 2016	Clin.	New Zealand	8	Mothers with abusive children	Cross-sectional Descriptive Qualitative interviews												x	x	

Com = Community sample; Clin = Clinical sample; Off = Offender sample; U.S.A. = United States of America; U.K. = United Kingdom; Aus. = Australia; S.A. = South Africa; y/o = year old; yr = year; w/ = with; IPA = Intimate partner abuse; ADHD = Attention Deficit Hyperactive Disorder; CPA = Child-to-parent abuse; Qual. = Qualitative; CTS= Conflict Tactics Scale; SES= Socioeconomic Status

Chapter 3: “But all kids yell at their parents, don’t they?” Social norms about child-to-parent abuse in Australia

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Preamble

Abuse is a term with different implications or meanings in different cultures and relationship contexts. While research has investigated what behaviours constitute abuse within the context of child abuse (The International Society for the Prevention of Child Abuse and Neglect [IPSCAN], 2014) and elder abuse (Moon & Benton, 2000), to date no research has examined what constitutes abuse in the child-parent relationship, despite calls to clarify this issue (Hollenstein & Lougheed, 2013; Kennedy, Edmonds, Dann, & Burnett, 2010).

Currently CPA research lacks sensitivity, examining a broad range of behaviours, which include, but are not necessarily limited to abuse. Presently, research either relies on the presence of specified behaviours to denote abuse (e.g., Browne & Hamilton, 1998; Edenborough, 2007; Fawzi, Fawzi, & Fouad, 2013; Izaguirre & Calvete, 2017) or uses frequency thresholds for single behaviours rather than overall patterns of behaviour (e.g., Calvete et al., 2013). Studies that use only the presence of a behaviour to categorise participants as abusive often produce high prevalence rates with great variability (e.g., 33-93%; Calvete et al., 2013; Calvete, Gamez-Guadix & Garcia-Salvador, 2015; Calvete, Orue & Gámez-Guadix, 2015; Jaureguizar, Ibabe & Straus, 2013; Pagani et al., 2009). There is no evidence that current thresholds are effective at differentiating normative behaviour from abuse. This limits our understanding of which children perpetrate abuse, and our ability to examine individual differences between those who are and are not abusive. This is particularly problematic in the area of non-physical abusive behaviour.

In an effort to improve the measurement of CPA (Research Aim 1) and better understand the individual and familial factors related to CPA (Research Aim 2), this chapter seeks to clarify what behaviours have the potential to be abusive, and at what frequency.

Abstract

Child-to-parent abuse research has been hampered by a lack of attention to what behaviours are commonly perceived as abusive and a poor understanding of when children's behaviour stops being difficult, but normative, and becomes abusive. This study investigated what Australian parents and young people perceived as abusive behaviour by children towards parents. Convenience samples of (a) parents of young people aged 14-25 years (n = 201) and (b) young people aged 14-25 years (n = 586) were asked to define at what frequency they believed 40 child-to-parent behaviours became abusive. Both parents and young people perceived that children could abuse their parents, but young people tended to be more permissive when defining abuse than were parents. The findings have implications for child-to-parent abuse measurement, particularly in relation to how coercive and verbally aggressive behaviour is (or is not) defined as abusive.

Keywords: child-to-parent abuse; child-to-parent violence; problem behaviour; social norms; operational definitions

3.1 Introduction

Research in Western societies suggests that there is an expectation that parents and adolescents will engage in regular conflict (Holmbeck & Hill, 1988). Given that child-parent relationships, particularly during adolescence, are recognised as being potentially difficult, there has been surprisingly little consideration of when child-parent conflict escalates beyond the point of difficult, but normative, and becomes unacceptable to harmful. Specifically, there is no research investigating where the threshold between what may be considered normative and what might be termed ‘abusive’ child-to-parent behaviour lies. This is despite a sizeable, and growing, body of research into the phenomenon of child-to-parent abuse (CPA; see Simmons, McEwan, Purcell & Ogloff, 2017, for review). As research into CPA develops and begins to influence government policy (see Miles & Condry, 2016), it becomes more important than ever to be very clear about the phenomenon under study, and what is and is not considered abusive behaviour.

The need to differentiate between disrespectful but normative child-to-parent behaviour and abuse has been highlighted as a priority for researchers over the past decade (Hollenstein & Loughheed, 2013; Kennedy, Edmonds, Dann, & Burnett, 2010). Despite this, there is yet to be any research into social norms about what constitutes CPA, or how frequently different kinds of behaviour must occur to be considered abusive. This lack of knowledge has led to inconsistent definitions of CPA in the literature, which has significantly impeded the understanding and prevention of this apparently common and often damaging behaviour (Simmons et al., 2017). Despite more than sixty years of research into CPA (see Simmons et al., 2017) two fundamental questions remain unanswered: (a) what behaviours should be incorporated into the definition of CPA? and (b) how can this complex phenomenon be measured in a way that reflects common understanding of what constitutes CPA? This study aims to

advance the literature by providing initial evidence regarding the nature of social norms about CPA in sample of Australian parents and young people.

3.1.1 Using social norms to refine the definition of CPA.

Most theoretical definitions of CPA describe an intentionally harmful pattern of behaviours (e.g. physically or psychologically aggressive or financially controlling acts; Cottrell, 2001; Edenborough, 2007; Holt, 2013). However, there is little guidance about whether a single incident of some behaviours might be considered abusive in some cases or a pattern of behaviour is required in others. Understanding the distinction between normative and abusive behaviour is paramount to the measurement of CPA. A key part of establishing this threshold is to consider the social norms through which the child's behaviour towards their parent is interpreted.

Social norms are informal standards of how individual group members should behave based on the values of a given social group and the individual's role within the group (Elster, 1989; Horne, 2001). Given the natural variability in social norms, it is likely that what is considered to be healthy and normative behaviour in the child-parent relationship is different to other familial relationships (e.g. intimate partners). Child-parent relationships have unique characteristics (e.g. their duration) and dynamics (e.g. power-imbalance, responsibilities, and experience of individuation). For instance, within intimate relationships in Western society, power parity is generally preferred. As such, negotiation and compromise are considered to be ideal conflict resolution strategies (Gottman, 1999). Therefore, attempts by one party to assert power over the other to resolve conflict may be perceived as abusive (Babcock, Waltz, Jacobson, & Gottman, 1993). In contrast, child-parent relationships have a natural power imbalance because children are typically financially dependent and are usually less 'developed' than their parents (cognitively and emotionally, if not physically). Moreover, parents have a duty of care towards their children that is not present in an adult intimate

relationship. Due to these unique relationship characteristics, children are typically expected to be compliant and their input into conflict resolution or decision making tends to be at the discretion of their parents (Recchia, Ross, & Vickar, 2010).

These unique relationship dynamics likely affect what is considered to be normative behaviour within the child-parent relationship. This may be particularly pertinent for lesser acts of aggression (e.g. insults) that, while ill-advised, are not significant enough to disrupt the parent-child power imbalance. At present, there is little information available about what parents or children think is and is not acceptable within their relationships, or when a child's behaviour should be considered abusive. Understanding these norms is a key part of improving CPA definitions.

3.1.2 Understanding social norms could improve measurement of CPA.

The lack of clarity regarding what behaviours are conceptualised as abusive has meant that operational definitions or measures have struggled to capture the complexity of CPA. Much of the seminal CPA research was drawn from epidemiological studies which found that 5-11% of youth had hit their parents (Agnew & Huguley, 1989; Brezina, 1999; Peek, Fisher, & Kidwell, 1985). The early focus on physical abuse suggests that these behaviours were easily identified as non-normative. However, later qualitative research suggested that the focus on physical violence failed to capture the complexity of CPA victimisation or the scope of behaviours that children used to abuse their parents (Eckstein, 2004).

Recent quantitative research has taken an more inclusive approach to the measurement of CPA by either using the Conflict Tactics Scale to operationalise CPA (Straus, 1979) (e.g. Boxer, Gullan, & Mahoney, 2009; Ibabe & Bentler, 2016), relying on lists of behaviours, rather than empirically validated measures (e.g. Pagani et al., 2003), or developing CPA-specific measures that assess a wide range of verbal, psychological, financial, and physical abuse (Calvete et al., 2013; Edenborough et al.,

2011; Ghanizadeh & Jafari, 2010). Although the new CPA-specific instruments address some limitations of the previous measures (e.g. designed specifically for the child-parent relationship; include a wider range of behaviours), these instruments have highlighted why creating operationalising CPA without considering social norms can be problematic.

By developing more inclusive instruments without consideration for how to differentiate between normative and abusive behaviour, reported CPA frequency estimates have ballooned from 5% (Agnew & Huguley, 1989) to over 90% (Calvete et al., 2013); clearly capturing normative behaviour despite their stated intent to measure CPA. Without any research investigating social norms about appropriate child-parent behaviour, it is impossible to know whether the behaviours that the authors of these instruments have labelled abusive are actually usually perceived as such.

To properly measure CPA, researchers and clinicians must accurately measure the full range of potentially abusive behaviours. But they also must understand at what point each of these behaviours is perceived as abusive. Current CPA measurement fails to recognise how a total *pattern* of behaviour may be abusive, even if individual behaviours are not. For example, isolated or infrequent acts of yelling or shouting, insulting a parent, or making unreasonable demands of a parent are seen as relatively typical behaviours exhibited by children and adolescents (Calvete et al., 2013). Yet these same hostile behaviours, if repeated frequently over time, can engender a sense of powerlessness in parents and become just as, if not more, deleterious as physical abuse (Eckstein, 2004). However, research often uses the presence of a single behaviour as a cut-off for the presence or absence of abuse (e.g. Boxer et al., 2009; Ulman & Straus, 2003), or selects an arbitrary cut-off (e.g. Calvete et al. [2013], state that a psychologically aggressive behaviour has to occur more than six times to be

abusive). The Substance Abuse and Mental Health Administration (1997) has criticised measures such as these that lack empirically derived cut-offs, saying that they have limited utility in clinical practice. Therefore, key task in improving measurement of CPA is to establish when different behaviours move from being normative to being considered abusive, and how patterns of different behaviours might similarly meet that threshold.

3.1.3 Who should determine what is and is not abusive?

Traditional measures of CPA reflect their authors' views of what is and is not abusive. However, defining what constitutes abuse is fraught as the concept varies considerably between societies and cultures (The International Society for the Prevention of Child Abuse and Neglect [ISPCAN], 2014; Levinson, Graves, & Holcombe, 1984; Moon, 2000). It is important to carefully consider *who* decides what constitutes abuse.

In research related to other forms of chronic victimisation (e.g. stalking) the behaviour has been defined according to the perceptions of and impact on the victim (Purcell, Pathe, & Mullen, 2002). We argue that CPA research should similarly define abuse according to the perceptions of parents as they are the targets of abuse and determine when the behaviour has crossed the threshold of what is unacceptable. Parents' perspectives are arguably more reliable than law enforcement or social services professionals as they are the primary source of information. As such they are the best source of information regarding the scope of behaviours, the context in which the behaviours occur, and their own limits. However, while definitions of abuse should be constructed based on parents' perceptions, particularly at this early stage of objectively conceptualising CPA, children's perspectives are also valuable to examine, although this is also not without limitations (e.g. it would be difficult to ask an

egocentric teenager, for example, to estimate the harm or impact of their behaviour on a parent).

3.2 Research Aims and Hypotheses

This research was designed to address a key evidence gap in the CPA literature by (1) determining what behaviour by children has the potential to be considered abusive, and (2) investigating when people perceive that children's behaviour towards their parents deviates from social norms and becomes abusive. This research seeks to specifically determine the point at which children's non-physically aggressive behaviour is considered abusive, as this is a point of great uncertainty in the literature.

This study examined social norms regarding children's behaviour towards parents in Australian samples of parents and young people. The secondary aims were to determine whether parents and young people differ in their definitions of normative versus abusive behaviour, and what behaviours are unambiguously considered to be abusive by the majority of parents and children. Comparisons were also conducted to determine whether there was a difference in perception of abuse according to gender.

It was expected that participants would recognise the potential for children's behaviour to escalate to the point of abuse, although different thresholds for abuse were anticipated depending on the apparent severity of the behaviour. Specifically, we hypothesised that physically aggressive behaviour would have to occur less often, and non-physically aggressive behaviours more often, to be considered abusive by both parents and children. It was expected that there would be some variation in what parents and young people considered to constitute abusive behaviour. However, given the novel nature of the research, no hypotheses were made about the direction of between-group differences. It was not expected that males and females would differ in their perceptions of what constitutes abuse.

3.3 Method

3.3.1 Sample.

The convenience samples consisted of 787 participants, 25.5% ($n = 201$; $M_{age} = 45.38$, $SD = 6.27$; range = 32 - 64) whom were parents of children aged 14-25 years ($M_{age} = 17.46$, $SD = 3.29$). The remaining 74.5% ($n = 586$) were young people aged 14-25 years ($M_{age} = 20.45$, $SD = 2.45$; range = 14-25). The parents and young people were recruited separately and the two samples were independent of each other.

The majority of participants were recruited through a university research experience program ($n_{parents} = 130$; 16.5%; $n_{young\ people} = 433$; 55.0%). Of note, Australian universities accept a wide range of students including those who are returning to study after working. As such, we were able to recruit parents of children aged 14-25 years from the university. These parents were not related to the young people who were also recruited through the university.

The remainder of the sample were recruited from a nationally recognised youth mental health website ($n_{parents} = 71$; 9%; $n_{young\ people} = 153$; 19.4%). Once again, the parents and children recruited from the website were independent from each other to the best of our knowledge. The national website provided access to a more diverse population to canvass the perceptions of a greater range of Australians rather than solely relying on predominantly middle-class university samples. Although many participants who were recruited from the website have engaged with mental health treatment, this was not a strictly clinical sample, as the website also offers information or assistance for relationship, family, or peer difficulties.

Most participants were female ($n = 628$; 79.9%). Sons ($n = 131$; $M_{age} = 20.80$, $SD = 2.39$) and daughters ($n = 455$; $M_{age} = 20.36$, $SD = 2.46$) did not differ significantly in age ($t(210.68) = -1.82$, $p = .07$). However, mothers ($n = 173$; $M_{age} = 44.70$, $SD = 5.69$) were significantly younger than fathers ($n = 28$; $M_{age} = 49.57$, $SD = 7.96$; $t(31.54) = -3.11$, $p < .01$, $M_{diff} = -4.87$). The majority of the participants identified ‘Australian’

as their primary cultural background (76.2%; $n = 600$), although only 0.5% identified as being Aboriginal or Torres Strait Islander ($n = 4$). The remaining participants identified as being from cultural backgrounds from Europe (11.3%; $n = 89$), Asia (6.3%; $n = 50$), Africa (2.3%; $n = 18$), New Zealand (including Maori) (1.5%; $n = 12$), one of the Americas (1.4%; $n = 11$), or Russia (0.3%; $n = 2$).

As many participants were recruited from a mental health website, we compared the proportion who had sought mental health treatment in the past. Within the youth sample, university participants (55%) were significantly less likely to have sought mental health treatment in comparison to those recruited from the website (66%; $\chi(1, N = 586) = 7.24, p < .001, OR = 1.61$). However, there were no differences in mental health treatment between parents recruited from the university (60%) and the website (61%; $\chi(1, N = 201) = 0.43, p = 0.51$).

3.3.2 Materials.

3.3.2.1 Beliefs About Child-to-Parent Abuse Questionnaire- (BACPAQ).

The BACPAQ was designed for the purpose of this study to investigate the frequency at which specific behaviours by children were perceived as abusive when directed towards parents. A literature review was conducted canvassing behaviours described in both qualitative and quantitative CPA research (see Simmons, McEwan, Purcell & Ogloff, 2017 for details of the review method). Some items were adapted from descriptions in qualitative studies, while other BACPAQ items that were adapted from previously developed CPA measures. These are listed in brackets below, with the numbers corresponding to those listed in Tables 3.1 and 3.2. BACPAQ items were adapted from the following validated CPA scales: the Child-to-Parent Abuse Questionnaire (CPAQ; Calvete et al., 2013; [11]; [14]; [16]; [26]), the Abused Parent Questionnaire (APQ; Ghanizadeh & Jafari, 2010; [6]; [12]; [14]; [15]; [17]; [21]), and the Child-to-Mother Violence Scale (CMVS; Edenborough et al., 2011; [13]; [14];

[16]; [17]; [21]; [24]), as well as from the CTS-2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1995; [5]; [11]; [23]; [26]; [35]; [36]; [37]). Additionally, the broader family violence measurement literature was reviewed to capture behaviours that may not have been previously measured in CPA research. Items that were adapted from IPV literature were derived from the Psychological Maltreatment of Women Inventory (Tolman, 1989; [3]; [5]; [6]; [11]; [17]; [18]), Abusive Behaviour Inventory (Shepard & Campbell, 1992; [7]; [13]; [20]; [22]; [23]; [24]; [35]; [36]; [37]; [38]; [39]), Composite Abuse Scale (Hegarty, Sheehan, & Schonfeld, 1999; [3]; [4]; [18]; [24]; [26]; [35]; [38]), Multidimensional Measure of Emotional Abuse (Murphy & Hoover, 1999; 2001; [5]; [10]; [11]; [13]; [15]), and the Scale of Psychological Abuse (Porrúa-García et al., 2016; [11]; [13]; [15]).

Reflecting changes to the CTS introduced in the CTS-2 (see Straus, 1990), specific items about physical aggression resulting in injury were included in the BACPAQ. To investigate if the presence of injury is necessary to determine whether a behaviour is considered abusive, or if injury is related to the severity of perceived abuse within the child-parent relationship, physical abuse items were separated according to extent of injury caused (i.e. no injury; minor injury (cuts, bruises, sprains); major injury (broken bones or teeth; head injuries)).

When completing the BACPAQ, participants read the following instructions, “In this section, you are asked to provide your views/perceptions about conflict between a child and parent. Below is a list of behaviours. For each behaviour, please rate *hypothetically*, how often would the behaviour have to occur in order for it to be considered abusive towards a parent?” Participants rated the behaviours on a 6-point scale (*Never; A few times, Monthly, Weekly, Daily, Several times a day*). A seventh option, *It is not abusive*, was available if participants felt the behaviour was not abusive, regardless of how frequently it occurred.

3.3.3 Procedure.

Participants were provided with a plain language statement explaining that the purpose of the study was to examine child-to-parent conflict, with a specific aim of differentiating “normal versus more abusive behaviour”. Participants provided consent through clicking “I consent”. This procedure was approved by Swinburne University Human Research Ethics Committee (SUHREC) on 13 November 2014.

After reading the plain language statement, participants completed the BACPAQ, rating the point at which they believed each behaviour became abusive. Participants also provided demographic information (e.g. age, gender, relationship status, family structure, cultural background, etc.). University participants received 0.5% additional credit on their course grade for their participation, while participants recruited from the website were not compensated.

To investigate thresholds for abuse using the BACPAQ, we drew on the Delphi Method for establishing consensus (Putnam, Spiegel & Bruininks, 1995). The threshold of abuse was the frequency at which 80% of the parent sample recognised the behaviour as abusive. This threshold was designed to capture 80% of parents’ opinions, regardless of the distribution. For example, 80% of parents recognised that the behaviour, *Shouted at a parent*, would be abusive if it occurred at least *Several times a day*. However, the distribution of participants’ opinions was as follows: *once* (11%), *a few times* (5%), *monthly* (8%), *weekly* (19%), *daily* (30%), *several times a day* (22%), and *it’s not abusive* (5%). While there was variation in parents’ responses regarding the frequency at which shouting at a parent became abusive, more than 80% of the sample agreed that if a child shouted at their parents several times a day, then it should be considered abusive. Using the 80th percentile as the threshold for abuse limits the potential for falsely classifying participants as abusive (see Jorm, 2015).

Chi-square tests of independence were used to test whether the proportion of young people's responses above and below the parental 80th percentile threshold significantly differed from parent's responses. Odds Ratios were used to assess how much more or less likely children were to identify a behaviour as abusive when compared to the sample of parents.

3.4 Results

Parents and young people were asked to report the frequency at which the 40 behaviours on the BACPAQ crossed the threshold from normative to abusive when directed by children towards their parents. The 80th percentile frequency thresholds at which behaviours were identified as abusive in the parent and young people samples can be seen in Tables 3.1 and 3.2. Parents and young people unequivocally agreed that 36 of the 40 behaviours had the potential to be abusive (see Table 3.2). Table 3.1 displays the four behaviours that were not considered to be abusive by parents. Notably, parents and young people differed on their perceptions of two of the behaviours ([#3] $\chi^2(1, N = 784) = 8.95, p < .01, OR = .54, 95\% CI = .36-.81$; [#4] $\chi^2(1, N = 784) = 16.33, p < .001, OR = .42, 95\% CI = .27-.64$).

Of the 36 behaviours that were considered abusive by both parents and young people, the 80th percentile frequency threshold for normative versus abusive behaviour differed between parents and young people for 12 behaviours (as shown in Table 3.2). Children had a significantly lower threshold than parents for two behaviours (i.e. children reported that these behaviours had to occur less frequently to be abusive than parents did). Both of these behaviours involved manipulating parents' feelings or behaviour ([#7] $\chi^2(1; N = 786) = 21.77, p < .001, OR = 0.31, 95\% CI = 0.18-0.52$; [#8] $\chi^2(1; N = 786) = 22.15, p < .001, OR = 0.30, 95\% CI = 0.17-0.50$). The odds ratios suggested that children were three times more likely than

parents to recognise the behaviours as abusive if they occurred less than *Daily* (parents' 80th percentile frequency threshold).

Table 3.1

The Frequency Threshold for Abuse for the Four BACPAQ Behaviours that are Not Abusive

	Behaviour	Abuse Frequency Thresholds		OR
		Parents	Young people	
1	Rolled eyes at a parent	Not Abusive	Not Abusive	
2	Talked back to parent	Not Abusive	Not Abusive	
3	Became upset because chores were not done how or when he/she wanted them to be done	Not Abusive	Daily**	0.54
4	Blamed parent for child's own behaviour	Not Abusive	Daily***	0.42

** $p < .01$; *** $p < .001$

However, children had a higher threshold for normative behaviour for the remaining ten items (i.e. children reported that the behaviours had to occur more frequently to be abusive than parents did). For two of these items, although the frequency threshold differed between parents and children, the difference was not large enough to reach significance ([#6] $\chi^2(1; N = 786) = 3.27, p = .07$, OR = 1.45, 95% CI = 0.97-2.17; [#13] $\chi^2(1; N = 786) = 1.70, p = .19$, OR = 1.31, 95% CI = 0.87-1.95). The remaining eight items included behaviours involving physical aggression without injury (excluding kicking or punching), financial abuse, and intimidating or humiliating parents (χ^2 ranging from 5.46- 21.71, $p < .02$ in all cases, ORs range 1.59-2.68, as shown in Table 3.2). In other words, children were 1.5 to 2.5 times less likely than parents to recognise these behaviours as abusive if they occurred only *Once* (i.e. [#20]; [#21]; [#22]; [#23]; [#24]; [#25]) or *A few times* ([#15]; [#16]).

The effect of parent gender on perceptions of abuse could not be investigated due to the small sample of fathers. However, traditional (male and female) gender differences between youth regarding their perceptions of what was considered abusive

behaviour were examined. Male and female youth differed in their perceptions of abuse on only one item ([#18] $\chi^2(1; N = 580) = 7.59, p < .01$, OR = 3.18, 95% CI = 1.34-7.52), with males three times less likely than females to recognise this behaviour as abusive if it occurred only *Once*.

Table 3.2

The Frequency Threshold for Abuse for the 36 Abusive BACPAQ Behaviours

	Behaviour	Abuse Frequency Thresholds		OR
		Parents	Young people	
5	Shouted or yelled	Several times	Several times	
6	Swore at parent	Daily	Several times ^{ns}	
7	Tried to keep parent from doing something that he/she wanted to do	Daily	Monthly ^{***}	0.31
8	Purposefully made parent feel guilty so that the parent would do what he/she wanted	Daily	Monthly ^{***}	0.30
9	Swore at parent in front of others	Daily	Daily	
10	Slammed or kicked objects in the house	Daily	Daily	
11	Insulted or humiliated parent	Daily	Daily	
12	Threatened to break or smash objects in the house	Weekly	Weekly	
13	Broke or smashed objects in the house	Monthly	Weekly ^{ns}	
14	Purposefully collected debt that parent had to pay	Monthly	Monthly	
15	Attempted to intimidate parent	A few times	Monthly ^{***}	1.97
16	Stole parent's money or possessions	A few times	Monthly [*]	1.58
17	Threatened to hurt him/herself or others if parent did not do what he/she wanted	A few times	A few times	
18	Threatened to turn friends or family against parent	A few times	A few times	
19	Threatened to burn parent's possessions	A few times	A few times	
20	Made parent do something humiliating	Once	A few times ^{***}	2.68
21	Used pressure, exploitation, or threats to obtain money	Once	A few times [*]	1.59
22	Threatened parent with an object	Once	A few times ^{***}	2.19
23	Threw something at parent - no injury	Once	A few times ^{**}	1.77

	Behaviour	Abuse Frequency Thresholds		OR
		Parents	Young people	
24	Grabbed or pushed parent - no injury	Once	A few times**	1.84
25	Hit or slapped parent - no injury	Once	A few times**	2.56
26	Kicked or punched parent - no injury	Once	Once	
27	Threw something at parent - minor injury	Once	Once	
28	Grabbed or pushed parent - minor injury	Once	Once	
29	Hit or slapped parent - minor injury	Once	Once	
30	Kicked or punched parent - minor injury	Once	Once	
31	Threw something at parent - major injury	Once	Once	
32	Grabbed or pushed parent - a major injury	Once	Once	
33	Hit or slapped parent - a major injury	Once	Once	
34	Kicked or punched parent - a major injury	Once	Once	
35	Used a weapon against parent	Once	Once	
36	Burned or scalded parent	Once	Once	
37	Choked parent	Once	Once	
38	Kept parent from getting medical care	Once	Once	
39	Forcibly confined parent	Once	Once	
40	Burned parent's possessions	Once	Once	

* $p < .05$; ** $p < .01$; *** $p < .001$; *n.s.* $p > .05$

Note: Several times = Several times a day

3.5 Discussion

This study provides novel information regarding Australian social norms about CPA. Specifically, the study adds new knowledge about what child behaviours are seen to have the potential to be abusive, and how frequently different kinds of behaviour must occur to be considered abusive. As expected, both parents and young people identified that most behaviours had the potential to be abusive. Further, consistent with our hypotheses, thresholds for abuse differed according to the apparent

severity of each behaviour. Parents and young people differed in their perceptions of when non-physically aggressive behaviours became abusive, however there were almost no observed gender differences in young people's perceptions (gender differences in parental perceptions could not be measured).

The findings suggest that both parents and young people recognised that young people have the potential to be abusive towards their parents, and that they largely agree on the range of behaviours that are potentially abusive (see Table 3.2). This study provides the first evidence to support this assumption, which has underpinned much of the CPA measurement research to date. Interestingly, the two behaviours which parents did not perceive as potentially abusive, in contrast to young people (i.e. [#3]; [#4]) were drawn from intimate partner abuse measures (Hegarty et al., 1999; Tolman, 1989). This highlights the necessity of investigating social perceptions of what constitutes abuse according the specific relationship type rather than assuming that behaviours that are abusive in one type of relationship would be considered abusive in one of a different kind. The latter approach fails to consider how social norms might differ across relationship types, which in turn affects what is perceived as acceptable or abusive behaviour.

As expected, different kinds of behaviour were considered abusive at different frequencies. There was consensus amongst parents that any physical aggression by young people was abusive. Generally, behaviours that involved psychological coercion or intimidation, as well as financial abuse, were considered abusive if they occurred a few times a year, while verbal aggression (e.g. shouting, swearing, insulting) had to occur daily for 80% of the parent sample to consider the behaviour abusive. The variation in thresholds for abuse suggests that parents relied on information regarding both severity *and* frequency of behaviour when determining what constituted abuse, with a small number of behaviours failing to meet the severity

threshold for abuse regardless of their frequency. These behaviours appear to be considered a normal part of disrespectful youth behaviour, at least by Australian parents.

Notably, parents agreed that, regardless of whether it caused injury, all physically aggressive behaviour by children was abusive. This indicates some disparity with definitions used to identify abuse within other familial relationships. For example, some government organisations stipulate that injury must be present to meet the threshold of physical abuse within the context of child abuse (Children's Bureau of the U.S. Department of Health & Human Services, 2017 [US]; National Society for the Prevention of Cruelty to Children, 2017 [UK]). These findings suggest that within the child-parent relationship, while injury maybe important to understand the severity of abuse, the presence of injury is not necessary to determine whether or not a child's behaviour is experienced as abusive.

It was interesting to see that young people were more permissive than parents of physically aggressive behaviours that do not result in injury. These behaviours (excluding kicking and punching) had to occur a few times a year to be considered abusive by young people, rather than just once as it was for parents. The difference between young people and parents in this sample suggests that, as perpetrators, young people may rely on the physical outcome of their behaviour to determine severity, rather than the potential for psychological or physical harm (noting that all behaviours that caused injury had a threshold of once, even among young people). However, there was strong consensus among parents that physical aggression of any form lies outside of normative behaviour within child-parent interactions, regardless of injury. Young people also had more permissive thresholds for abuse on a further five items, representing financial abuse, humiliation, and intimidation. It is a concern that young people appeared to underestimate the severity of these behaviours, as research

suggests that behaviours that are psychologically abusive or controlling in nature may result in greater negative mental and physical health outcomes for parents than physical abuse (Eckstein, 2004). These results reinforce the need to define CPA according to parents', rather than young people's perspectives.

The discrepancy between parents' and young people's perceptions of abuse may be attributable to a self-serving bias amongst the young people, but there are other potential explanations. It is possible that adolescent deficits in perspective taking (i.e. cognitive empathy) contribute to underestimation of the impact of behaviour on parents. The ability to take another person's perspective develops in parallel with the pre-frontal cortex, limiting adolescents' perspective taking skills in comparison to adults (Choudhury, Blakemore, & Charman, 2006). There is some support for the idea that perspective-taking, or the broader construct of empathy, influences young people's reports of problematic behaviour towards parents. Van Lissa and colleagues (2015) found adolescents, specifically those with low or average levels of empathy (both cognitive and emotional empathy), reported significantly less conflict with their parents than was reported by their mothers or fathers during the same study. Adolescents not only reported less conflict than their mothers, but they reported a decrease in conflict during mid-adolescence while mothers reported an increase. That study provides some preliminary reason to think that impaired perspective-taking may hinder adolescents' ability to accurately appraise their behaviour and determine what is acceptable versus what is not, and may represent an avenue for intervention with CPA perpetrators. These constructs were not measured in the current study, preventing further investigation.

This study advances the field of CPA by helping to identify social norms concerning what behaviours do and do not have potential to be abusive. Perhaps most importantly, it provides critical data explicating what Australian parents think

constitutes abuse, which is important as CPA should be defined by the views of those experiencing it. By explicitly considering social norms relating to CPA, we recognise that children's behaviour towards their parents differs from parents' behaviour towards children, or behaviour between intimate partners, and therefore what is considered acceptable within the relationship may also vary. Further, as young people are often participants in CPA research, these findings add to the literature by highlighting that parents and young people can significantly differ in their perceptions of what is considered to be acceptable behaviour within the child-parent relationship. These results suggest a possible bias in self-report questionnaires that ask young people to appraise whether or not their behaviour is abusive, and potentially more so if the young person has general or relationship-specific limitations in their capacity for empathy (Van Lissa et al., 2015)

3.5.1 Implications for measurement of CPA.

As well as providing new information about the scope of behaviours that may be considered abusive, these findings provide novel information about *how* different behaviours can constitute abuse, with implications for existing measures. The results highlight that many CPA measures (e.g. ABQ, CTS, CMVS, CPAQ) likely conflate verbal aggression and potentially more damaging verbal abuse. The current results suggest that parents do not perceive verbal aggression as abusive until it occurs on at least a daily basis over the course of a year, highlighting the importance of considering the overall pattern of behaviour in defining what is or is not abusive. This finding has particular implications when interpreting the results of studies that use presence of a single act of verbal aggression alone as an indicator of abuse, as they may not be generalisable to studies of more clearly abusive behaviour (see Boxer et al., 2009; Ulman & Straus, 2003). However, even if current tools increased their thresholds for abuse using a frequency measure, the scoring protocols of measures such as the CPAQ

(Calvete et al., 2013) and CTS (Straus, 1979) cannot differentiate between behaviours that occur bi-monthly or biweekly, respectively, and those that occur at greater frequencies. As such, these tools lack the specificity needed to discriminate verbal aggression from abuse according to this research.

In contrast, these results support the use of traditional CPA measures (e.g. APQ, CMVS, CPAQ), including the CTS, when identifying abuse based on the presence of physical aggression alone. Physical aggression needed to occur only once in a year to be recognised as abuse in this study, which can be assessed with almost all existing instruments. Further, despite criticisms of the CTS (Morse, 1995; Straus, 1990), these results suggest that injury is not essential in order for the behaviour to be defined as abuse by a parent (while of course remaining important in understanding the severity of abuse and risk of harm to the target).

Examining social norms provides insight into the utility of previously developed measures of CPA by determining what parents and young people perceive as abusive in Australia, however it may not be appropriate to generalise the results to other cultures. Highlighting the need for culturally-sensitive research, a study investigating perceptions of child abuse in 73 countries found significant cultural variation in what behaviours were perceived as normative versus abusive (IPSCAN, 2014). Given the unique relationship dynamic involved in CPA, culturally-specific social norms regarding conflict resolution, parenting, familial hierarchy, and aggression could be expected to have a significant impact on what is and is not considered to be abusive, perhaps even more so than for other forms of aggression or family violence.

While the current results may not be able to be generalised cross-culturally, consideration of social norms does offer a pathway for further cross-cultural research into CPA. The results of this study could inform the development of a culturally-

sensitive instrument for measuring CPA. Such an instrument could incorporate measures of the severity and frequency of behaviour, and be able to identify abuse based on socially normative thresholds relevant to the specific culture or society. This would not only represent a significant step forward for CPA research, it may also have potential application in other areas of family violence measurement. While definitions of child abuse (IPSCAN, 2014; Levinson et al., 1984) and elder abuse (Moon, 2000) have been subject to some scrutiny, research into behaviours such as intimate partner violence has not considered incorporating social norms when conceptualising what is or is not abusive. Future research may benefit from investigating the similarities and differences between types of family violence, which may provide interesting comparative social norms information.

Study of social norms may also provide the opportunity to investigate how parents view their children's behaviour at various ages. In the present study, participants were not asked to consider a specific age for the hypothetical young person whose behaviour they were rating. As such, while we provided initial data for CPA social norms, we cannot say for certain whether they relate specifically to adolescents and young adults or can be generalised to other age groups. Use of measures such as the BACPAQ has potential to increase understanding of age- and gender-specific social norms in the child-parent relationship, including answering research questions regarding the age at which children's problem behaviour may begin to be perceived as abusive, or whether perceptions of behaviours by boys and girls differ.

3.5.2 Limitations.

Although this study fills an evidence-gap regarding social norms about CPA in Australia, there are important limitations to consider. Recruiting fathers proved to be difficult, which is consistent with parenting and family research that has found mothers

are more inclined to participate than fathers (Phares, Fields, Kamboukos, & Lopez, 2005). Despite numerous attempts at recruiting fathers through parenting or male-specific websites, the size and diversity of the parent sample was limited. As such, we could not investigate gender differences in parents' perceptions of abuse. Future research employing a larger, more diverse sample may benefit from exploring whether sociodemographic characteristics affect parents' perceptions of CPA. In samples with greater gender parity, it would also be interesting to consider whether thresholds for abuse vary according to the gender of the target and perpetrator. Research suggests there is a gender bias when perceiving the severity and acceptability of aggression, which varies according to whether the aggression is physical or psychological (Basow, Cahill, Phelan, Longshore, & McGillicuddy-DeLisi, 2007).

While the BACPAQ attempted to incorporate potentially abusive behaviours from both qualitative and quantitative CPA research, as well as other family violence literatures, it cannot be assumed that it is an exhaustive list of all potential behaviours; rather, it is a representative list. It is unclear whether there are behaviours that have yet to be discussed in CPA or other abuse literature that are not captured in this list but would be considered abusive. For instance, advances in technology, which have changed the pattern of abuse and harassment in other relationships (Tokunaga, 2010), may lead to new forms of online abusive behaviour towards parents that have not been considered here. As yet, there has been no consideration of how technology impacts CPA research, which may be an interesting avenue for investigation.

Finally, although the aim of this research was to quantitatively determine the frequency at which child-to-parent behaviour deviates from social norms and becomes abusive, this study did not explore the complexities of differentiating normative and abusive behaviours. Future research may benefit from employing a qualitative research design to provide a more in-depth understanding of both the scope of

behaviours that have the potential to be abusive, as well as what information parents use to determine if behaviour is normative or abusive.

3.5.3 Conclusion.

This is the first known study to investigate social norms regarding CPA, and specifically what behaviours are viewed as potentially abusive by parents. This is essential information for improving the definition and measurement of CPA, particularly with regards to understanding how non-physical aggressive behaviours can constitute abuse within a family. Variations in thresholds for abuse within the present study suggest that current measures of CPA are failing to accurately assess non-physical abuse by children, at least within Australia. This study provides evidence that within Australia, both parents and young people recognise that children have the potential to be abusive towards their parents, although young people may be less likely than parents to perceive their behaviour as abusive. The findings of this study suggest that not all behaviours that are considered abusive in other relationships (i.e. between intimate partners) are perceived as abusive in the child-parent relationship. Future research could examine how relationship type, culture, age, and gender influences what is perceived as abusive, in order to improve measurement of CPA (and potentially other forms of family violence).

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Chapter 4: Creating the Abusive Behaviour by Children Indices to Differentiate Normative and Abusive Behaviour

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Preamble

As child-to-parent abuse (CPA) research has progressed, so too has the measurement of CPA. Two tools, the Conflict Tactics Scale (CTS; Straus, 1979) and the Child-to-Parent Abuse Questionnaire (CPAQ; Calvete et al., 2013) have become the most popular for operationalising CPA in research (see Chapter 3 for review). However, measures of CPA, including the CTS and CPAQ, have neglected to consider the difference between aggression and abuse. For instance, while insulting a parent may be an act of verbal aggression, the results of Chapter 3 (Simmons, Purcell, & McEwan, 2017) suggest that this behaviour is not considered abusive by parents unless it occurs weekly. There are no known measures of CPA that include cut-off scores to differentiate acts that are abusive from those that are aggressive or allow for the consideration of patterns of different behaviours that together constitute abuse.

Despite recent improvements in CPA measurement, the field remains limited by a lack of consideration for the severity of behaviours and thresholds differentiating normative from abusive behaviour. Table 4.1 applies the scoring procedures for the CPAQ and CTS to five example behaviours from the BACPAQ developed in Chapter 3 (the CTS and CPAQ scoring procedures were generalised to these five items, despite not all being included in these tools). Table 4.1 shows how the CTS and CPAQ do not consider the severity of behaviours in their scoring protocols. For example, any person who strangles a parent once would receive a score of ‘1’ on the CTS or CPAQ, despite the obvious severity of this action. Comparatively, swearing at a parent 25 times (approximately twice a month) would receive a score 3 (CPAQ) to 25 (CTS) times greater than strangling a parent once. This is particularly concerning as swearing at a parent would receive a substantially greater score despite the results in Chapter 3 highlighting that this behaviour has to occur daily before it is considered to be abusive. As such, the CTS and CPAQ scoring protocols appear to overestimate the severity of

more subtle forms of abusive behaviours (e.g., verbal abuse), while potentially underestimating the severity of significant acts of physical violence (e.g. strangling a parent).

Table 4.1

Comparison of CPAQ and CTS frequency count scoring procedures with thresholds of abuse for five behaviours.

	CTS						CPAQ			Abuse Threshold using BACPAQ
	1	2	3-5	6-10	11-20	20+	1-2	3-5	6+	
Swore at parent	1	2	4	8	15	25	1	2	3	Daily
Insulted or humiliated a parent	1	2	4	8	15	25	1	2	3	Weekly
Broke, smashed objects	1	2	4	8	15*	25	1	2	3	Monthly
Threatened to hurt self or others	1	2*	4*	8	15	25	1	2*	3	A few times
Strangled parent	1*	2	4	8	15	25	1*	2	3	Once

CTS = Conflict Tactic Scale; CPAQ = Child-to-Parent Abuse Questionnaire

* Scores in the CTS and CPAQ that correspond to the thresholds for abuse on the BACPAQ.

Further, the CPAQ and CTS lack the sensitivity to differentiate abusive and normative behaviour for more subtle forms of abuse. Table 4.1 highlights the scores according to the CTS and CPAQ that correspond to the frequency thresholds for abuse found in Chapter 3 (scores marked with *). For instance, threatened to hurt self or others has to occur *a few times* to be abusive (see Chapter 3). At this frequency it would receive a score of 2 or 4 (depending on frequency) on the CTS or a score of 2 on the CPAQ. However, the thresholds for abuse for behaviours such as swore at a parent (*Daily*) or insulted or humiliated a parent (*Weekly*) are not represented on either tool. Indeed, the maximum frequency categories for both the CTS (i.e., 20+) and the CPAQ (i.e., 6+) conflate normative behaviour with abusive behaviour, if BACPAQ thresholds for abuse are considered (see Chapter 3). This has a greater effect on the CPAQ, as the maximum frequency category (6+) is unable to differentiate normative

from abusive behaviours for any behaviour that has to occur more than a *few times a year* to be abusive.

Chapter 3 was the first study to investigate social norms regarding CPA, specifically examining the thresholds of abuse. The results suggested that current measures used in CPA research lack the sensitivity necessary to detect more subtle forms of abuse, yet the scoring protocols overestimate the severity of these behaviours if they occur frequently. The field of CPA would benefit from the development of a new tool that can differentiate abuse from aggression by considering the frequency, severity, and overall pattern of child-parent behaviours.

In Chapter 4, one such tool, the Abusive Behaviour by Children-Indices (ABC-I), is presented and evaluated, in an attempt to address some of the limitations of CPA measurement. The development of the ABC-I used the same 40 behaviours as the BACPAQ (see Chapter 3), however, the wording was revised to be relevant to parents' and youth's own experiences (e.g., Swore at a parent; my child swore at me). A unique scoring protocol was developed for the ABC-I using the frequency thresholds for abuse that were established in Chapter 3. The frequency at which a behaviour met the threshold for abuse received a score of '16', thus creating a standardised score for abuse that differed depending on the severity of the behaviour. Any behaviour that occurred more or less frequently than the threshold for abuse received a score greater or less than 16, respectively, by a factor of 2 (see Table 4.2 for example scoring procedures).

Chapter 4 details the development of the ABC-I using the same parent sample that was reported in Chapter 3 ($N = 201$). An empirically derived cut-off score for abuse was developed by selecting the total score that demonstrated optimal sensitivity (i.e., true positive) and specificity (i.e., true negative) in correctly classifying young people as abusive when compared to the parents' own opinion about whether they

were abusive. The structure and convergent validity of the ABC-I was then investigated in a sample of young people aged 14 to 25 years ($N = 587$).

Table 4.2

ABC-I Scoring Procedure with Thresholds of Abuse for Five Behaviours

	A few				
	Once	times	Monthly	Weekly	Daily
Shouted at parent	1	2	4	8	16*
Insulted or humiliated a parent	2	4	8	16*	32
Broke, smashed objects	4	8	16*	32	64
Threatened to hurt self or others	8	16*	32	64	128
Strangled parent	16*	32	64	128	256

* Threshold of abuse according to Simmons et al., 2017; Chapter 3

Abstract

Child-to-parent abuse (CPA) research struggles to differentiate between disrespectful and abusive behaviour, leading some to conclude that 90% of children abuse their parents and rendering the concept essentially meaningless. The Abusive Behaviour by Children-Indices (ABC-I) was developed with parents of youth aged 14-25 years ($N=201$) with the aim of differentiating abusive and non-abusive youth. A novel scoring procedure was created from parents' norms about abuse. Index-development procedures reduced 40 items derived from the literature to 10 behaviour descriptors. Parents who identified their children as abusive were 89% more likely to have higher ABC-I scores than non-abused parents. The structure of the ABC-I was tested in a sample of youth (14-25 years, $N = 587$) using partial least squares-structural equation modelling, further reducing the Indices to nine items. The ABC-I identified a 12-month CPA incidence rate of 16%, with better identification of abuse involving psychological aggression or coercion than existing measures.

Keywords: child-to-parent abuse; child-to-parent violence; aggression; index development

4.1 Introduction

Child-to-parent abuse (CPA) was first mentioned in academic literature in 1957, as researchers unexpectedly observed kindergarten-aged children acting in physically aggressive ways towards their parents (Sears et al., 1957). The almost incidental nature of this early study was repeated in subsequent CPA research during the 20th century, as clinicians (e.g., Gallagher, 2004; Harbin & Madden, 1979) and researchers (e.g., Brezina, 1999; Kolko, Kazdin, & Day, 1986) described unexpected findings that children often acted aggressively towards their parents, but without intending to measure CPA or situating their findings within the context of existing research. This has produced a disjointed field of exploratory research that developed without purposeful hypothesis testing or theoretical guidance, or even a consistent way of defining or measuring CPA. As a consequence, it is difficult to generalise between studies or conduct experimental research in which the presence of CPA can be clearly ascertained (Simmons et al., 2017). In this paper, we critically review existing approaches to measuring the presence and nature of CPA and describe the development of the Abusive Behaviour by Children-Indices (ABC-I), a tool designed to categorise children as abusive if the frequency or severity of aggressive behaviour towards their parents exceeds what is considered to be socially normative.

4.1.1 Measurement of CPA to date

Initial CPA measurement involved direct observation of aggression towards parents or descriptions of abusive youth by clinicians who encountered this behaviour in practice (e.g., Charles, 1986; Habin & Madden, 1979). As CPA gained recognition as a form of family violence, the Conflict Tactics Scale (CTS; Straus, 1979) became popular in CPA research (e.g., Browne & Hamilton, 1998; Ibabe & Bentler, 2016). While the CTS was originally developed and used as a measure for all forms of family violence (Straus, 1979), more recently the CTS and its successor (the CTS-2; Straus,

Hamby, Boney-McCoy, 1996) have been strongly associated with intimate partner violence (IPV) research, with the CTS-2 using IPV-specific items. As such, CPA research has generally used six questions from the original CTS to assess verbal and physical aggression towards parents (e.g., Browne & Hamilton, 1998). However, similar to criticisms that led to the development of the CTS-2, the CTS applied to CPA neglects some of the phenomena that have been observed in descriptive studies of CPA (e.g., coercion; financial abuse) and focuses on frequency of behaviour, rather than severity, thus providing limited insight into how harmful different behaviours used with similar frequency may be (Rubio-Garay, Lopez-Gonzalez, Carrasco, & Amor, 2017).

As the CPA field expanded, CPA-specific instruments were developed to address a wider range of potentially abusive behaviour (Calvete et al., 2013; Edenborough et al., 2011; Ghanizadeh & Jafari, 2010). The first of these tools was the Abused Parent Questionnaire (APQ; Ghanizadeh & Jafari, 2010), a 27-item measure that assessed the frequency of a child's aggressive behaviour. It was developed from parents' descriptions of aggressive and abusive behaviour by children in the National Clearinghouse on Family Violence report (DeKeseredy, 1993). The APQ subsequently demonstrated good internal reliability and concurrent validity in a sample of children aged 6 to 14 years recruited in a psychiatric setting in Iran (Fawzi, Fawzi, & Fouad, 2013). Shortly thereafter, the 9-item Child-to-Mother Violence Scale (CMVS; Edenborough et al., 2011) was developed in Australia for use with mothers of children aged 10 to 24 years. The items were derived from existing measures, literature, and feedback from children, parents, and experts, and demonstrated sufficient test-retest validity, internal reliability, and split-half reliability in the development sample. The CMVS has not been used in published research since the development study.

Recently, the Child-Parent Abuse Questionnaire (CPAQ; Calvete et al., 2013), initially known as the Intra-Family Violence Scale (Ibabe, Jaureguizar, & Bentler, 2013) has become the most commonly used CPA-specific tool in research (e.g., Calvete, Orue, Gámez-Guadix, 2015; Izaguirre & Calvete, 2017; Rico, Rosado, & Canton-Cortes, 2017). The development paper did not describe the item selection process, as such it is presumed that these behaviours were chosen based upon their face validity. The structure and internal reliability for this 10-item Spanish tool was tested in the development study with youth aged 13-18 years, although it has also been used in older samples (e.g., Rico et al., 2017). The CPAQ scores problematic behaviour based upon frequency. A cut-off for *Severe Aggression* is provided (i.e., psychological coercion that has occurred more than six times or physical aggression that has occurred at least three times; Calvete et al., 2013). However, this cut-off cannot account for combination of different behaviours resulting in an abusive pattern of behaviour. Moreover, it is unclear how this threshold was derived or whether it is effective in differentiating normative, if disrespectful, from abusive behaviour.

4.1.2 Critique of measurement approaches.

4.1.2.1 Differentiating between abuse and aggression.

A problematic aspect of the three existing measures of CPA is the use of arbitrary, author-imposed, thresholds for abuse that have not been tested against any external measure. The presence of a single behaviour has often been used to determine the prevalence of abuse when using the APQ (Fawzi et al., 2013), CPAQ (e.g., Calvete, Orue, et al., 2015; Izaguirre & Calvete, 2017), and the CMVS (Edenborough, 2007). While this may be an appropriate way to identify the presence of physical CPA, other research has shown that it is the frequency with which non-physical aggression is repeated that is the most important factor in determining whether it is considered abusive (Follingstad & Deheart, 2000).

Lack of consideration for the overall pattern of behaviour and the interaction between the severity and frequency of non-physical aggression in existing tools has resulted in marked differences in CPA research using qualitative versus quantitative designs. Qualitative research highlights the gravity of psychological abuse, noting parents' reports that psychological abuse is more difficult to cope with than physical abuse (Eckstein, 2004). Quantitative research conflates patterns of psychological abuse with single incidents of, or infrequent disrespectful behaviour, inflating prevalence estimates of overall CPA (e.g., 91%; Calvete, Orue, et al., 2015) and hindering the investigation of characteristics associated specifically with abuse. For example, in some studies participants would be labelled as abusive for yelling at their parents once (Ghanizadeh & Jafari, 2010). Inconsistency in the results of research using different designs suggests fundamental problems in how CPA has been ascertained, a particular problem for epidemiological studies attempting to describe the phenomenon. If the nature of CPA, the characteristics of perpetrators, and its impact on targets are to be understood, the first step must be accurate measurement that is not onerous to complete, which captures the full scope of the phenomenon, and which allows the user to differentiate CPA from inappropriate but non-abusive behaviour.

4.1.2.2 Critique of theory guiding CPA measurement.

In addition to the short-comings of how CPA has been operationalised, there appear to be weaknesses in the theory underpinning CPA measurement more generally. In psychological research, Classical Test Theory (CTT) is the principal theory guiding measure development (Allen & Yen, 1979; Nunnally, 1978). CTT assumes that items from the same scale are *caused by* the same underlying variable. For example, as traits such as intelligence cannot be directly measured, cognitive assessments use items that *reflect* participants' underlying intelligence. Any changes

in the items (e.g., answers to algebra questions) *reflect* or are *caused by* changes in the underlying variable (e.g., mathematic intelligence). In contrast, children are labelled ‘abusive’ as a *consequence of* their pattern of behaviour, rather having an underlying ‘abuse’ trait that causes this behaviour. While some abusive behaviours may cluster together (e.g., financial, physical, emotional control), a change in one abusive behaviour does not necessarily mean a change in all types of abusive behaviour. In this sense, abuse is a *formative* construct that is composed of observable phenomena and does not exist in their absence, rather than a *reflective* construct that underpins observable phenomena and exists without their presence (Bollen & Lennox, 1991).

While reflective constructs are measured using scales, formative constructs are measured using indices. Scale development aims to verify the assumption that a single reflective variable affects all items on the scale by demonstrating internal consistency (i.e., items measure the same underlying construct), convergent validity (i.e., scale is related to other measures of the same construct), and discriminant validity (i.e., scale is not related to measures of different constructs; DeVellis, 2012). Index development does not share this assumption. In fact, the deletion of items because of poor internal consistency may reduce the validity of the index if a poorly correlating item is omitted that captures a unique characteristic of the formative construct (DeVellis, 2012). Rather than using measures of reliability and validity to develop an index, index development involves: (1) specifying the breadth of the formative construct; (2) a census of items that form the construct; (3) investigating item multicollinearity; and (4) examining items’ external validity (Dianantopoulous & Winklhofer, 2001). While the first two stages are theoretical, the latter two provide empirical evidence that the items are not redundant within the index and measure the full scope and nature of the formative construct.

Although abuse has traditionally been measured using scales developed based

on CTT, there is some evidence to support the idea that indices would be more appropriate for the measurement of abuse. Subscales of the CTS and CTS-2 are weakly to moderately correlated with each other, suggesting that they may not reflect a single latent variable (Newton, Connelly, & Landsverk, 2001; Pan, Neidig, & O’Leary, 1994), and there is a notable lack of research regarding the overall internal consistency for the CTS and CTS-2 (although individual subscales evidence good internal consistency; Straus, 1979; Straus et al., 1996; Straus, 2004). Similarly, internal consistency for the CPAQ is also typically reported according to subscale and varies in strength (i.e., α range: .61-.88; Calvete, Gamez-Guadix, & Garcia-Salvador, 2015; Izaguirre & Calvete, 2017), with no evidence that the subscales all reflect a single underlying construct. We propose that, rather than attempting to refine a measure to the most parsimonious set of behavioural descriptors with high inter-correlations, a more appropriate way to measure the full breadth and range of CPA is to develop an instrument measuring a formative construct according to the principles of index development.

4.1.3 The current research

This paper describes the development of the Abusive Behaviour by Children Indices (ABC-I), which measures the frequency and severity of a range of potentially abusive behaviours children may use towards parents. The ABC-I aims to provide a culturally-relevant measure of CPA that can be completed by either parents or children (aged from pre-teen to adulthood). The ABC-I’s development is informed by the content of the Beliefs about Child to Parent Abuse Questionnaire (BACPAQ; Simmons, Purcell, & McEwan, 2017), a measure of social norms regarding what constitutes CPA.

4.2 Study 1

Study 1 first aimed to develop the Abusive Behaviour by Children-Indices

(ABC-I) to differentiate normative behaviour towards parents from CPA, and then aimed to examine the validity of outcomes derived using the indices against an external criterion of whether CPA was present.

4.3 Method.

Parents of adolescents and young adults aged 14-25 years ($N = 201$; female = 173; $M_{age} = 45.35$, $SD = 6.27$ range: 32-64) were recruited through a university research experience program and advertisements on social media and a nationally recognised youth mental health website. Within Australia, universities accept a wide variety of students, including those who are returning to study after work, making it possible to recruit parents of youth as participants. The university participants were compensated with 0.5% course credit for an introductory psychology class. Other participants did not receive compensation. Most participants identified Australian as their primary cultural background (70.5%; $n = 141$), with one participant identifying as Aboriginal (0.5%). The remaining participants identified as European (19.5%; $n = 39$), Asian (4.0%; $n = 8$), African (1.5%; $n = 3$), an American culture or ethnic group (2.0%; $n = 4$) or New Zealanders (1.5%; $n = 3$).

Participants read a plain language statement highlighting that the purpose of the study was to differentiate between “normal versus more abusive behaviour”. After reading the plain language statement, participants clicked “I consent” and identified whether their child (aged 14 to 25) had engaged in any of 40 behaviours towards them over the past 12 months. Participants who had multiple children were asked to complete the questionnaire while keeping in mind their ‘most difficult child (even if they were rarely difficult)’. Participants reported having between 1 and 9 children (Median = 2), with most parents ($n = 174$; 86.5%) reporting multiple children in their family. Approximately half of parents reported that their most difficult child was female ($n = 198$; 52%). This procedure was approved by Swinburne University Human

Research Ethics Committee (SUHREC) on 13 November 2014.

4.3.1 Materials.

4.3.1.1 Abusive Behaviour by Children-Indices (ABC-I).

The ABC-I consisted of 40 behaviour descriptors rated by frequency on a 7-point scale (*Never –Once –A few times –Monthly –Weekly –Daily– Several times a day*). These items were derived from both qualitative and quantitative CPA literature as well as measures of intimate partner abuse, to ensure that a broad range of behaviours were considered (see Simmons, Purcell, & McEwan, 2017, for more information on item selection).

The development of the ABC-I was informed by the Beliefs About Child-to-Parent Abuse Questionnaire (BACPAQ; Simmons et al., 2017), which investigates social norms about CPA by asking how often various behaviours must occur to be abusive. Simmons and colleagues (2017) found that Australian parents reached consensus that 36 of the behaviours had the potential to be abusive in the child-parent relationship. Two ABC-I items, *Threatened to burn parents' possession* and *Burned parent's possessions*, could not be investigated in this study because no participants endorsed them. For this study, the scale was reduced from seven to six points because the difference between *Daily* and *Several times a day* was thought to lack specificity.

The ABC-I scoring procedure differs by item, depending on parents' perceptions of how often the behaviour described in the item would have to occur to be abusive. For each ABC-I item, a score of 16 is given to the frequency at which the behaviour is thought to become abusive (i.e. the threshold of abuse as set by parents responding to the BACPAQ). For example, in the Australian sample of parents used to set scoring for the ABC-I in this study, swearing at a parent had to occur daily over 12 months while strangling a parent only had to occur once to be considered abusive and receive a score of 16 (Simmons et al., 2017). If a behaviour is reported to occur more or less

frequently than the item's threshold for abuse, the score increases or decreases by a factor of 2, respectively. Possible scores for swearing at a parent range from 0 (occurred once) to 16 (occurred daily), while scores for strangling a parent range from 16 (occurred once) to 256 (occurred daily).

4.3.2 Procedure

4.3.2.1.1 Index development.

Index development follows the procedure outlined by Diamantopoulous & Winklhofer (2001) and described above. While the first two steps in this procedure are theoretical, not empirical, discussing them is necessary to demonstrate valid index development.

4.3.2.1.2 Specification of content.

Items on the BACPAQ were selected to capture the full range of CPA described in the literature, including property damage and physical, verbal, emotional, psychological, or financial aggression (Cottrell, 2001; Holt, 2013; Howard & Rottem, 2008). See Simmons et al., (2017) for detailed discussion of item selection.

4.3.2.1.3 Specification of items.

Using the BACPAQ, Simmons and colleagues (2017) provided evidence that 36 of the 40 the behaviours described had the potential to be abusive, according to Australian parents. These 36 items are listed in Table 4.1.

4.3.2.1.4 Examination of collinearity.

Spearman's correlations and Variance Inflation Factors (VIF) were calculated to assess collinearity of the 34 ABC-I items measured in this study (Diamantopoulos, Riefler, & Roth, 2008; Kleinbaum, Kupper, Nizam, & Rosenberg, 2013). In index development, there are no assumptions about the relationships between items (Bollen & Lennox, 1991); rather correlations need only be consistent with theory (Cadogan, Souchon, & Procter, 2008). For this study, items were removed or collapsed if negative

correlations were found, as there is no theoretical justification for inverse relationships between behaviours, or if items were redundant (i.e., $\rho < .80$ or a VIF > 10 ; Kleinbaum et al., 2013). Items with null or weak correlations were retained as they were seen to capture a unique characteristic of CPA. If items with differing thresholds for abuse were collapsed, the threshold of the item with the greater severity was applied (e.g., item [7]'s threshold for abuse was *Weekly* and item [8]'s was *Monthly*. *Monthly* would be the resulting threshold after collapsing the two items).

4.3.2.1.5 Criterion validity.

Spearman's correlations were used to assess the strength of the relationship of each item with participants' opinion of whether their child's behaviour towards them was abusive (yes/no). Any variables that were not positively correlated were removed.

4.3.2.1.6 Index structure.

Principle Components Analysis (PCA) was computed using promax rotation to explore the structure of the ABC-I, as there is no prior research on which to base confirmatory analyses. While traditional factor analysis examines the shared variance between items, PCA calculates the overall variance amongst a group of items, which better reflect the intent of index development, rather than scale development (Bryant & Yarnold, 1995).

4.3.2.2 Evaluation of indices.

Following the development of the ABC-I, a Mann Whitney *U* test was conducted to determine whether scores on the ABC-I differed significantly for parents who reported that their child's behaviour was abusive compared to those who did not.

Receiver Operating Characteristic (ROC) analysis was used to calculate the Area under the Curve (AUC) to determine how effectively the novel scoring method discriminated between parents who reported their child's behaviour to be abusive and those who did not.

Table 4.3
Items Used to Develop the Abusive Behaviour by Children-Index with their Thresholds

Item	Threshold	Item	Threshold
1 Shouted	Daily	19 Threatened parent with an object	Once
2 Swore at parent	Daily	20 Threw something at parent – No Injury	Once
3 Swore at parent in front others	Daily	21 Grabbed, pushed parent - No Injury	Once
4 Insulted or humiliated a parent	Daily	22 Hit, slapped, kicked, or punched parent - No injury	Once
5 Purposefully made a parent feel guilty so that they would do something for the child	Daily	23 Kicked, or punched parent - No injury	Once
6 Slammed, kicked objects in the house	Daily	24 Threw something at parent – Minor Injury	Once
7 Threatened to break, smash objects in the house	Weekly	25 Grabbed, pushed parent - Minor Injury	Once
8 Broke, smashed, objects in the house	Monthly	26 Hit, slapped, kicked, or punched parent - Minor injury	Once
9 Purposefully collected debt that parent had to cover	Monthly	27 Kicked, or punched parent - Minor injury	Once
10 Threatened to or tried to turn family and friends against parents	Few times	28 Threw something at parent – Major Injury	Once
11 Attempted to intimidate parents	Few times	29 Grabbed, pushed parent - Major Injury	Once
12 Threatened to hurt self or others if parent did not do what he/she wanted	Few times	30 Hit, slapped, kicked, or punched parent - Major injury	Once
13 Stole parent’s money or possessions	Few times	31 Kicked, or punched parent - Major injury	Once
14 Used exploitation or threats to get parent to give him/her money	Once	32 Burned or scalded parent	Once
15 Made parent do something humiliating	Once	33 Strangled parent	Once
16 Kept parent from doing something that they wanted	Once	34 Used weapon against parent	Once
17 Forcibly confined parent	Once	35 Threatened to burn parents’ possessions	Once
18 Kept parent from getting help or medical attention	Once	36 Burned parents’ possessions	Once

In this sample, 38% ($n = 76$) of participants described their child as being abusive towards them. The ROC curve plots the sensitivity and 1-specificity values for each possible score on the ABC-I. The overall AUC value represents the probability that a randomly selected participant who described their child as abusive would score higher on the ABC-I than a participant who described their child as not abusive ($AUC = 0.50$ indicates that score distributions are no better than chance, while an $AUC = 1.0$ indicates that the self-identified abused group score higher 100% of the time). The sensitivity and 1-specificity of each point on the AUC was examined to determine the optimum ABC-I score for differentiating abusive from normative behaviour.

4.4 Results

4.4.1 Examination of collinearity.

All correlations between items were significant, ranging from $\rho = .22 - 1.0$. Three items ([14], [5], [9]) were removed due to multicollinearity with two ($\rho = .85 - .86$), four ($\rho = .79 - .85$), and six ($.79 - .86$) variables, respectively. All physical aggression items ([20] to [35]) were combined into a single variable due to multicollinearity ($\rho = .70 - 1.00$). Two pairs of items ([17] - [18]; [7] - [8]) were combined due to correlations ranging from .80 to .97. Items [3] and [10] were removed due to multicollinearity ($\rho = .80 - .84$) with items [2] and [11], respectively. After collapsing the multicollinear items, all VIFs were below the cut-off of 10 (range = 1.53 - 5.08), confirming absence of multicollinearity in the remaining 13 items.

4.4.2 External validity.

All items were significantly and positively correlated ($r = .22 - .53$) with parents' judgements that their child's behaviour was abusive; evidencing external validity.

4.4.3 Examination of structure.

A PCA was computed using the remaining 13 items. The KMO test showed that the model was fair (.73) and the determinant of the matrix was acceptable at .000064.

Items [6], [15], and [16] were removed due to cross-loadings greater than .35. The remaining 10 items (see Table 4.2) demonstrated fair model fit ($KMO = .78$; 95% CI = .73-.86) and had an acceptable determinant of the matrix (.0055). Parallel Analysis recommended three components based upon the mean, which explained 72% of the variance. The $RMSR = 0.077$ (95% CI: .05-.10) was acceptable (Harman, 1962).

Table 4.4

Factor Loadings of ABC-I.

Item	Verbal aggression	Coercive behaviour	Physical aggression
Shouted at a parent	.81		
Swore at a parent	.84		
Insulted or humiliated a parent	.85		
Attempted to intimidate a parent		.85	
Stole money or possessions from parents		.78	
Threatened to hurt self or others if parent did not do what the child wanted		.78	
Broke, smashed objects in the house, or threatened to do so		.56	.36
Acted physically aggressively towards parent (e.g., hit, slap, kick, push, punch, grab, burn, strangle)			.76
Kept parent from seeking help or medical care			.86
Threatened parent with an object			.82

The three components were related to verbal aggression (3 items), coercive behaviour (4 items), and physical aggression (3 items). Although, *Broke, smashed objects or threatened to do so* was cross-loaded on coercive behaviour and physical aggression, it was retained on the coercive behaviour component because, despite both loadings being greater than .35, the difference in component loadings was .20 (Hair, Hult, Ringle, & Sarstedt, 2017). All components were moderately correlated with each other

(physical - coercive (.43); physical - verbal (.40); coercive - verbal (.42)).

The potential range for scores on the ABC-I is 0 to 1264. In the current sample, the median ABC-I score was 8 ($M = 33.66$, $SD = 63.22$, range: 0-584). It seems unlikely that respondents would obtain scores above 700, as this would require daily acts of physical aggression towards a parent. That said, youth who did score in this range would be engaging in extremely severe CPA and the ABC-I would be effective in detecting and differentiating this from less severe abuse. In this sample, ABC-I scores were significantly greater for parents who reported that their child's behaviour was abusive (Median = 79) compared to those who did not (Median = 2; $U = 1038$, $p < .001$)

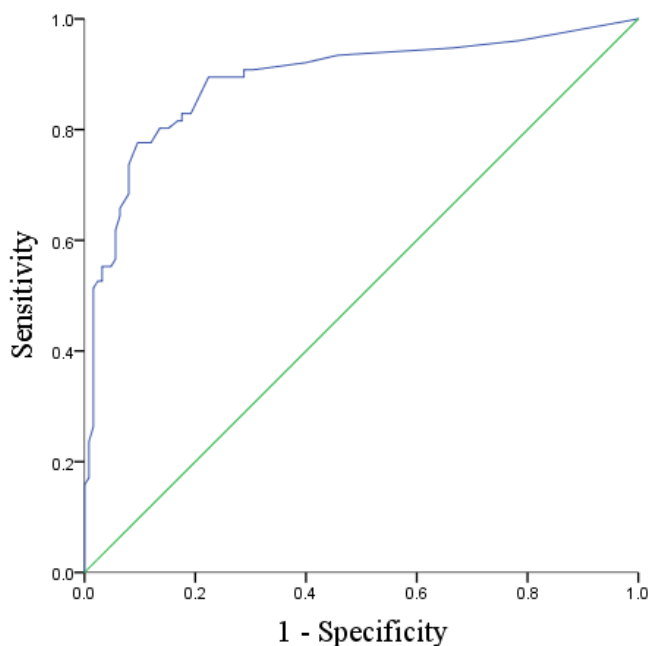


Figure 4.1 Graph of the AUC for total ABC-I scores in parent sample

The ROC analysis showed that scores on the ABC-I provided excellent discrimination between parents who perceived their child's behaviour to be abusive and those who did not ($AUC = .89$ (95% CI: .84-.94), $SE = .03$, $p < .001$; See Figure 4.1). Examination of the sensitivity and specificity associated with each possible score showed that a score of 16 provided the best classification of cases, classifying 82% of

self-identified abuse cases as abusive (sensitivity = .82), while classifying 83% of self-identified 'not abuse' cases as non-abusive (specificity = .83).

4.5 Discussion of Study 1

The ABC-I items were derived from CPA and IPV literature. Ten items clustered into three components, which represented physical aggression, verbal aggression, and coercive behaviour. Notably, the coercive component included financial and emotional abuse items, ensuring that all aspects of the theoretical definition of CPA were addressed in the measure. The components were moderately correlated with each other, as might be expected given the potentially different determinants of different patterns of CPA (Simmons, McEwan, Purcell, & Ogloff, 2017). Due to different validation procedures for scales and indices, we did not calculate internal consistency.

The ABC-I demonstrated an excellent ability to discriminate between parents who described their children as abusive and those who did not, with an 89% probability that a randomly selected parent from the former group would have a higher score than a randomly selected parent from the latter group. In the current sample, a total score of 16 demonstrated optimal sensitivity and specificity in differentiating abusive and non-abusive behaviour. Coincidentally, using the chosen scoring metric a score of 16 is also given to the threshold at which a behaviour is considered to be abusive according to local social norms (Simmons et al., 2018). Therefore, whether participants receive a score of 16 because their child met the threshold for a single behaviour, or because of their child's overall pattern of behaviour, they will be categorised as targets of abuse using the ABC-I.

4.6 Study 2

The aim of Study 2 was to confirm the structure of the ABC-I within an Australian youth population aged 14-25 years old and investigate convergent validity with the CPAQ.

4.7 Method

4.7.1 Sample.

Participants ($n = 587$) aged 14 to 25 years ($M = 20.44$; $SD = 2.45$) were recruited online. Most participants ($n = 434$; 74%) were enrolled in an undergraduate introductory psychology course. These participants were compensated with 0.5% increase to their overall course grade. The remaining participants ($n = 153$; 26%) were recruited from social media or a nationally recognised mental health website and were not compensated for their participation. Most participants were female ($n = 456$; 77.8%) and Australian ($n = 458$; 78.0%), with three (0.5%) identifying as Australian Aboriginal. The remaining participants identified as being European (8.5%; $n = 50$), Asian (7.2%; $n = 8$), African (2.6%; $n = 15$), Kiwi or Maori (1.7%; $n = 10$), from the Americas (1.2%; $n = 10$) or Russian (0.3%; $n = 2$).

After reading a plain language statement, participants provided consent electronically. Participants were asked to describe who raised them as a child. Most reported that they were raised by both parents (67%; $n = 398$), followed by their mother (30%; $n = 181$), their father (2%; $n = 10$), or raised by others (e.g., grandparents; 1%; $n = 6$). There were no reported same-sex parental relationships. Participants completed an ABC-I for each of the caregivers who raised them (if applicable). In total, 580 participants completed an ABC-I for their mother (or female caregiver) and 466 participants completed an ABC-I for their father (or male caregiver), with 454 participants completing ABC-Is for both parents.

4.7.2 Materials.

4.7.2.1 *Abusive Behaviour by Children-Indices (ABC-I).*

Participants completed a 40-item questionnaire which asked how often they used each behaviour towards a parent within the past 12-months on a 7-point ordinal scale from *Never* to *Several times a daily*. Based on the results of Study 1, their responses

were collapsed into the 10-item ABC-I with 6-point rating scale (i.e., *Never* to *Daily*). Collapsed items were scored based upon the highest score within the collapsed group of items.

4.7.2.2 Child to Parent Abuse Questionnaire (CPAQ).

The CPAQ (Calvete et al., 2013) consists of 10 items administered separately for each parent measuring physical (3 items) and psychological (7 items) CPA within the past year of living together. The psychological abuse questions contain items about verbal aggression and financially abusive behaviours. While there has been variation in the internal consistency of the CPAQ subscales in past research (i.e., α range: .61-.88; Calvete, Gámez-Guadix, et al., 2015; Izaguirre & Calvete, 2017), internal consistency in the present study was acceptable for both the physical ($\alpha = .77$) and psychological scales ($\alpha = .75$).

On the advice of an author of the CPAQ, the present study used a version of the CPAQ scored on a 5-point scale (1 = *never* to 5 = *very often*). A cut-off for *Technical Abuse* was used to highlight participants who endorsed using any behaviour *sometimes* (i.e., 3+; I. Ibabe, personal communication, September 26, 2017).

4.7.3 Procedure.

A Partial Least Squares-Structural Equation Model (PLS-SEM) was used to confirm the 3-component structure of the ABC-I reported in Study 1. Index development differs from scale development in that the greater the number of items, the more likely it is that an item's weight in a structural model will be non-significant (Hair et al., 2017). To address this issue, items were grouped according to their sub-indices, creating a hierarchical formative measurement model (Becker, Rai, & Rigdon, 2013; Hair et al., 2017), in which items pointed towards both the presence of sub-index constructs and the overall construct.

Collinearity was assessed by calculating VIF values. The outer-weights of the

model were examined to determine each item's relative contribution to the overall construct of CPA. Bootstrapping was used to test whether the outer-weights were significantly different from zero. As outer-weights are relative, a non-significant result does not automatically justify removal of the item. Outer-loadings must also be considered to evaluate the item's absolute contribution to the construct (Hair et al., 2017). Items with non-significant outer-weights were retained if they had either: (1) high (i.e., $>.50$) outer-loadings or (2) moderate (i.e., $>.20$) outer-loadings but theoretical importance (Hair et al., 2017). Gender comparisons on the ABC-I were conducted using Chi-Square tests with Odds Ratio as measure of effect size.

Convergent validity was assessed by correlating the ABC-I scores of 135 participants who were cohabiting with a parent at the time of participation and who had results on the CPAQ. Additionally, Chi-Square goodness of fit test with Cramer's V as a measure of effect size was used to determine whether the threshold for *Technical Abuse* categorised the same proportion of participants as abusive as the ABC-I's threshold for abuse.

4.8 Results

The VIF values (1.02-2.43) were well below the threshold of 10, indicating that multicollinearity was not an issue (Kleinbaum et al., 2013). Examination of the subindices model showed that *Swore at parent* had an insignificant outer weight (.02) and outer loading (.01). As such, it was collapsed into, *Swore or shouted at parent*. The model was rerun and once again the VIF values (1.45-1.88) suggested that multicollinearity was not a problem. This time, all outer weights pointing to the subindices were significant (.15-.93).

Three items had non-significant outer weights in the overall index, *Swore or shouted at parent* (.05), *Stole money or possessions from parents* (.07), and *Threatened parent with an object* (.09). However, all items had moderate outer loadings of .37,

.33, and .40, respectively. These items were retained as they represent aspects of CPA that would be not assessed without them (i.e., verbal, financial, and threatened physical abuse).

The total effects of the subindices on the index were .30 (verbal aggression), .41 (physical aggression), and .50 (coercive behaviour). There were strong correlations between the ABC-I and its subindices (.79 - physical, .83 - verbal, .86 - coercive), as well as moderate correlations between the subindices themselves (coercive behaviour - physical aggression (.43); physical aggression - verbal aggression (.54); coercive behaviour - verbal aggression (.61)).

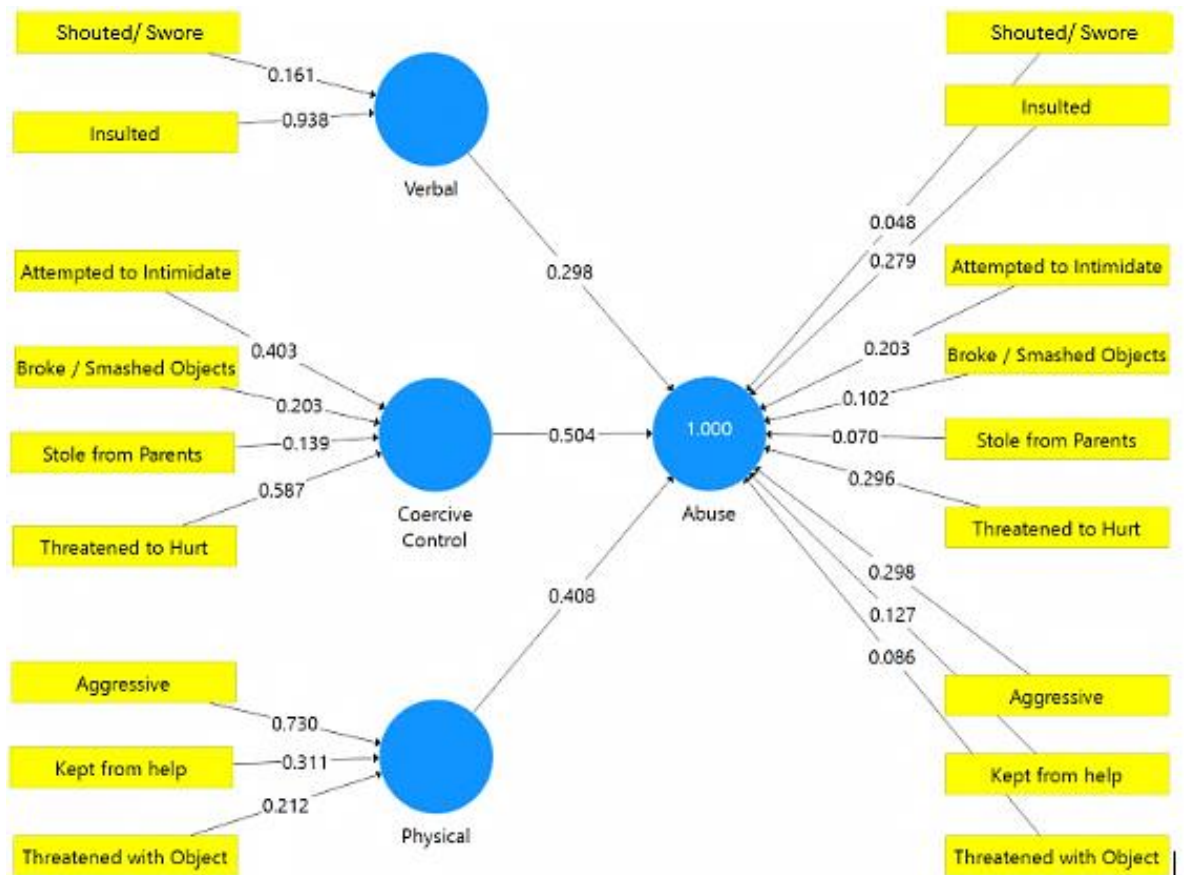


Figure 4.2. Partial least squares model of the ABC-I in a youth sample.

The final version of the ABC-I contained nine questions (see Figure 4.2). While the ABC-I has a total possible score of 1216, scores in this sample ranged for 0 to 608

($M = 7.61$; $SD = 38.80$; Median = 0) for behaviour towards fathers and 0 to 352 ($M = 6.69$; $SD = 25.92$; Median = 1) for behaviours towards mothers. Overall, 16% ($n = 98$) participants were classified as abusive towards at least one of their parents (i.e., score ≥ 16 per Study 1), with 15% ($n = 84$) of participants categorised as abusive towards their mother and 10% ($n = 46$) as abusive towards their father. The most common targets of abuse were mothers in two-parent households (35%; $n = 35$) or both parents (35%; $n = 34$), followed by single mothers (17%; $n = 16$), then fathers in two-parent households (13%; $n = 13$). No participants abused single fathers.

As shown in Table 4.3, males were significantly more likely than females to report abusing either parent ($\chi(1, N = 585) = 7.01, p < .01$, OR = 1.90, 95% CI = 1.18 – 3.08) or their fathers ($\chi(1, N = 465) = 6.49, p = .01$, OR = 2.27, 95% CI = 1.19 – 4.32). Mother abuse did not significantly differ between males and females ($\chi(1, N = 576) = 2.37, p = .12$), nor did the frequency of the various types of abuse. However, males were more likely than females to report coercive behaviour towards their fathers ($\chi(1, N = 465) = 10.447, p = .001$, OR = 2.44; 95% CI = 1.41-4.25) and mothers ($\chi(1, N = 576) = 7.13, p < .01$, OR = 1.89; 95% CI = 1.78-3.03).

Finally, convergent validity was assessed by comparing the ABC-I and the CPAQ. In the reduced sample ($n = 135$), 42% met the threshold for abuse on the CPAQ for mothers ($M = 6.96$; $SD = 4.35$, range: 0 – 21) and 36% met the threshold for fathers ($M = 6.05$; $SD = 4.42$; 0 – 17). There were no gender differences in CPAQ scores for aggression against fathers ($t(39.86) = -.34, p = .73, M_{\text{diff}} = -.36$) or mothers ($t(133) = .90, p = .37, M_{\text{diff}} = .78$). Correlations (ρ) were used to compare the relationships between the total scores on the ABC-I and CPAQ.

Table 4.5

Proportion of Participants Engaging in Any Aggressive Behaviour and Behaviour that Exceeded the Threshold of Abuse Towards Their Parents

		Verbal Aggression		Coercive Behaviour		Physical Aggression		Overall		
		Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	Either
Behaviour		<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Sons	Any aggression	48	74	25**	33*	---	---	54	77	81
		(49)	(57)	(24)	(26)			(52)	(60)	(68)
	Abuse	3	2	10	14	8	7	17**	24	31**
		(3)	(2)	(10)	(11)	(8)	(9)	(17)	(19)	(24)
Daughters	Any aggression	165	287	42**	69*	---	---	176	291	314
		(46)	(64)	(12)	(15)			(49)	(65)	(80)
	Abuse	8	15	19	32	13	29	29**	59	65**
		(2)	(3)	(5)	(7)	(4)	(7)	(8)	(13)	(14)
All participants	Any aggression	215	363	67	103	---	---	231	370	397
		(46)	(63)	(14)	(18)			(50)	(64)	(68)
	Abuse	11	17	29	46	22	38	46	84	98
		(2)	(3)	(6)	(8)	(5)	(7)	(10)	(15)	(16)

Note: Prevalence of physical abuse was omitted from table because any act meets the threshold for abuse. Sample size varies ($n_{\text{father-son}} = 80$; $n_{\text{father-daughters}} = 235$; $n_{\text{mother-son}} = 106$; $n_{\text{mother-daughters}} = 321$). Chi-Square tests compare differences in behaviour of sons and daughters. Differences between father and mother abuse could not be investigated because these are not mutually exclusive categories. * $p < .05$; ** $p \leq .001$

Overall, there was a moderate relationship between scores on the ABC-I and CPAQ for both mothers ($\rho = .47$) and fathers ($\rho = .51$). However, the proportion of participants categorised as abusive by the CPAQ did not resemble ABC-I for mothers ($\chi(1) = 73.39, p < .001, V = .74$) or fathers ($\chi(1) = 54.86, p < .001, V = .74$). For fathers, 78% ($n = 28$) of those categorised as abusive on the CPAQ were not abusive according to the ABC-I and 33% ($n = 4$) who were categorised as abusive on the ABC-I were not abusive the CPAQ. Similarly, 72% ($n = 44$) of mothers who were categorised as abusive on the CPAQ were not on the ABC-I and 38% ($n = 8$) who were categorised as abusive on the ABC-I were not on the CPAQ.

The 9-item structure of the ABC-I was tested on the sample from Study 1. The model was fair ($KMO = .75$) and the determinant of the matrix was acceptable at .01011. The RMSR was acceptable (0.081; 95% CI: .05-.11; Harman, 1962). The three components explained 73% of the variance. The cut off score of 16 was sufficient (sensitivity = .79; specificity = .85).

4.9 Discussion of Study 2

A PLS model confirmed the ABC-I's three-component structure in a sample of young people. Two items (i.e., shouting at and swearing at a parent) were collapsed, resulting in 9 items divided into three sub-indices. This structure was also found to demonstrate appropriate fit in the parents' sample when analyses were rerun. Given its fit in samples of both parents and children, the 9-item, three-component structure is the advised structure for the ABC-I.

According to the 9-item structure of the ABC-I and the culturally-relevant total score threshold of abuse (16), 16% of participants were categorised as being abusive towards their parents within the past year. This is well below other estimates of overall

CPA perpetration (e.g., Brown & Hamilton, 1998 [CTS]; Fawzi et al., 2013 [APQ]; Ibabe, 2013 [CPAQ]). When considering only the prevalence of physically abusive behaviour, the frequency rates in our study were akin to Browne and Hamilton's (1998) study of CPA perpetration among English university students, as well as other physical abuse research (e.g., Ibabe et al., 2013). The lower rate of identified psychological and coercive abuse differentiates our results from past research.

Notably, while relatively few participants met the cut-off for verbal abuse on the ABC-I, a similar proportion of participants reported using verbal aggression against their parents as described in previous research (i.e., 46-63%; Calvete et al., 2013; Pagani et al., 2009). The ABC-I's novel scoring procedure means that it is the first instrument that is able to differentiate non-physical abuse from occasional disrespectful or bad behaviour, according to local social norms for what constitutes abuse. The unique scoring procedure also explains why abuse status on the ABC-I was only moderately related to participants' CPAQ scores, as participants who occasionally used verbal aggression or coercive behaviour towards their parent would have elevated CPAQ scores but would not be categorised as abusive on the ABC-I.

Overall, females were less likely to be abusive towards their parents according to the ABC-I, contradicting most previous research in community samples using adolescent participants (e.g., Agnew & Huguley, 1989; Ibabe & Bentler, 2016; McCloskey & Lichter, 2003). The unusual gender difference in this sample appeared to be related to a higher rate of father abuse by sons compared to daughters. These findings are consistent with past research which has showed that sons are more likely than daughters to abuse their fathers (Agnew & Huguley, 1989; Walsh & Krienert, 2007). Further, as our sample ($M_{age} = 20.44$) was older than most found in CPA research (Simmons et al., 2017), these results may provide evidence for the hypothesis that the pattern of abuse changes with increased age. CPA research suggests that

females desist from CPA earlier than males (Walsh & Krienert, 2007; Snyder & McCurley, 2008) and that older males are more likely to direct more abuse towards their fathers than younger males (Peek, Fischer, & Kidwell, 1985; Walsh & Krienert, 2007). However, as this was a cross-sectional study, this hypothesis could not be tested.

4.10 General Discussion.

The aim of these studies was to develop culturally-relevant indices of CPA that could differentiate between abusive and normative behaviour, which has been highlighted as a necessity in this field within the last decade (Hollenstein & Lougheed, 2013; Kennedy, Edmonds, Dann, & Burnett, 2010). In an Australian sample, a score of 16 on the ABC-I correctly classified four out of five cases of parent-reported abuse. This empirically derived threshold for abuse contributes significantly to the literature by improving specificity when detecting abuse, accounting for social norms and the overall pattern of the child's behaviour.

4.10.1 Instructions for administering the ABC-I.

The ABC-I is a novel tool which provides a unique approach to quantifying abuse. By scoring individual behaviours with reference to social norms to identify whether the overall pattern of behaviour is abusive, the ABC-I provides an empirically derived threshold for abuse rather than relying only on researchers' opinions of what is abusive (which may be strongly coloured by factors such as culture or class). The combination of social norms and self-reported experience presents a significant step for measurement of abusive behaviour. Appendix 4.1 provides the scoring instructions and items for the ABC-I for youth.

To administer this tool in a sample of young people, separate responses should be given for each parent or guardian. When administering the tool with parents, the wording of the items can be changed to refer to their child's behaviour. Depending on the context in which the tool is used, parents can complete an ABC-I for each

individual child between the age of 14 and 25 years or complete an ABC-I based upon their most difficult child (even if they are hardly ever difficult). Any participant who receives a score of 16 or greater is considered to be abusive, regardless of whether the score results from a single behaviour, a category of behaviour (e.g., verbal, coercive, physical behaviour), or an overall pattern of behaviour in the past 12 months.

While it is advised that all measures are validated for each new population they are used in, this is not always done in practice. However, it is imperative that the BACPAQ (Simmons et al., 2017) and ABC-I be administered together in novel populations because definitions of CPA will likely vary across culture, as noted in child abuse research (The International Society for the Prevention of Child Abuse and Neglect, 2014). Future research outside of Australia would require administering the BACPAQ in tandem with the ABC-I to identify culturally-specific thresholds for abuse that are used to anchor item scores on the ABC-I (with the identified threshold scoring 16 and scores around increasing and decreasing by a factor of 2).

4.10.2 Understanding CPA in Australia using the ABC-I.

According to the ABC-I, the overall prevalence of CPA in the youth sample was 16%. The rate of physical abuse (7%) was relatively consistent with past research (e.g., Cornell & Gelles, 1981; Ibabe et al., 2013). This is unsurprising, given that one incident of physical aggression is sufficient to be considered abusive by most Australian parents (Simmons et al., 2017). As such, frequency scales such as the CPAQ would be adequate for measuring the presence of physical abuse (in Australia, at least). Conversely, while the frequency of verbal aggression reported by participants (46-63%) was consistent with previous research that used a simple frequency count to define the presence of abuse, the frequency of verbal abuse in Study 2 (16%) was considerably lower than previous research (e.g., >33%; Calvete et al., 2013). This suggests that young people in the current sample reported similar behaviours as those

in previous research, but the ABC-I demonstrated greater specificity in differentiating between normative and abusive behaviour than has been possible with previous measures.

4.10.3 Limitations and future directions.

This research provides evidence for the utility and validity of the ABC-I. However, as the final ABC-I was not the one completed by participants, future research should confirm the structure of the indices by administering only the collapsed items and reduced rating scale. Additionally, due to difficulties with recruiting fathers, the parent participant sample was primarily mothers. This hindered the investigation of gender differences in parents' perceptions of abuse. Future research would benefit from greater recruitment of fathers, and potentially by specifying responses on the BACPAQ by child's gender, as it is possible (or even likely) that social norms surrounding abuse are gender-sensitive. Finally, this paper aimed to develop the ABC-I, rather than to explore individual differences in abusive behaviour. Future research would benefit from considering differences in scores on the ABC-I according to age, gender, whether the youth is living with their parent, socio-economic status, and psychological characteristics so that we may better understand the phenomenon of CPA in Australia.

4.10.4 Conclusions.

The ABC-I measures child-to-parent abuse using a novel scoring procedure that considers the frequency and severity of the behaviour, as well as the norms of the culture in which the behaviour occurs. According to the ABC-I, 16% of our Australian sample were abusive towards their parents, with sons being more likely to be abusive than daughters. Mothers and fathers were equally likely to have been abused by their children, although fathers were more likely to be abused by their sons. These results highlight that CPA is a relatively common issue within Australia and it is not restricted

to children under the age of 18, as much past research has assumed. The development and validation of the ABC-I means that future research into CPA will be better able to discriminate abusive from disrespectful youth in a consistent way. This in turn will assist in developing understanding that can inform prevention and intervention efforts for this common problematic behaviour.

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Appendix 4.1

The ABC-I (Australian scoring scheme)

Below is a list of behaviours. Please indicate how often you have behaved in the following ways towards your parent within the past 12 months.

	Never	Once	A few times	Monthly	Weekly	Daily
1. Shouted or swore at your parent	0	1	2	4	8	16
2. Insulted or humiliated your parent	0	1	2	4	8	16
3. Broke, smashed objects in the house, or threatened to do so	0	4	8	16	32	64
4. Attempted to intimidate your parent	0	8	16	32	64	128
5. Stole money or possessions from your parent	0	8	16	32	64	128
6. Threatened to hurt self or others if your parent did not do what you wanted	0	8	16	32	64	128
7. Kept your parent from seeking help or medical care	0	16	32	64	128	256
8. Threatened your parent with an object	0	16	32	64	128	256
9. Acted physically aggressively towards your parent (e.g., pushed, grabbed, slapped, punched, kicked, burned, strangled, used weapon against)	0	16	32	64	128	256

If you have acted physically aggressively towards your parent during the past year, please indicate all behaviours that you have used:

☐ threw something at ☐ pushed ☐ grabbed ☐ hit or slapped ☐ punched ☐ kicked ☐ strangled

☐ used a weapon against ☐ burned or scalded on purpose ☐ other _____

Please indicate whether any of your physically aggressive behaviour caused injury to your parent during the past year:

☐ none of my behaviour caused any injury

☐ my behaviour caused minor injury (they did not need medical attention; e.g. cuts, bruises)

☐ my behaviour caused major injury (they needed medical attention; e.g., broken bones or teeth, head injury)

Scoring Procedure:

Verbal Aggression = 1 + 2;	Physical Aggression = 7 + 8 + 9;
Coercive Behaviour = 3 + 4 + 5 + 6;	Total Score = 1+2+3+4+5+6+7+8+9

**Chapter 5: A Social-Cognitive Investigation of Young Adults who Abuse Their
Parents**

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Preamble

The recent move from purely exploratory CPA research towards more purposeful hypothesis-driven designs has seen increased emphasis on applying general aggression theory to enhance understanding of CPA (e.g., Calvete, Orue, Gamez-Guadix, & Bushman, 2015; Contreras & Cano, 2016; Ibabe, Jaureguizar, & Bentler, 2013b). This is consistent with recent advances in general aggression research that have called for greater interconnections to be established across aggression in different contexts (Hamby & Grych, 2013). Consistent with general aggression and intimate partner violence research (Anderson & Bushman, 2002; Finkel et al., 2012), factors such as aggression-related cognition (e.g., attitudes, scripts, schemas; Calvete et al., 2015; Contreras & Cano, 2014a; Contreras & Cano, 2015; Contreras & Cano, 2016a), anger (Calvete et al., 2015), and impulsivity (Contreras & Cano, 2015; Contreras & Cano, 2016a; Rico, Rosado, & Canton-Cortes, 2017) have been shown to be related to CPA.

While this area of the CPA literature is growing, it remains limited by the use of measures that primarily score behaviours based upon frequency, or which employ arbitrarily selected cut-offs for defining abuse. As a result, community-based CPA research investigates factors that are related to the frequency of a wide range of aggressive behaviours, rather than the severity of a pattern of behaviour that constitutes abuse. Because of the use of frequency scoring, research that examines factors related to abuse status (i.e., abusive or not-abusive) often includes heterogeneous groups of individuals potentially ranging from somewhat rude (e.g., shouted at a parent more than six times) to those who would likely be perceived as abusive by almost everyone (e.g., beaten parent within something that could hurt them more than three times; Calvete et al., 2013). This hinders our understanding of

individual differences related to perpetrating abuse, as predictor variables have to be relevant to a heterogeneous set of behaviours.

Chapter 5 seeks to investigate social-cognitive risk factors for CPA as defined by the Abusive Behaviour by Children-Indices (ABC-I). As the ABC-I scores behaviours both on their severity and frequency, this chapter seeks to advance the literature by modelling factors predicting the severity of a pattern of behaviour rather than predicting a pattern of frequent but potentially non-abusive behaviours. Chapter 5 develops and tests a multivariable model based upon previous CPA research and well-developed theories of general aggression and intimate partner aggression (Anderson & Bushman, 2002; Finkel et al., 2012). This chapter aims to further develop our understanding of risk factors associated with aggressive or abusive behaviour, as well as identifying links between CPA and other forms of aggressive behaviours that may share similar risk factors (Hamby & Grych, 2013).

Abstract

Young adults who abuse their parents are among the least understood family violence perpetrators and are rarely discussed within the family violence literature. This paper integrates prominent social cognitive theories of aggression to explore factors associated with perpetration of child-to-parent abuse among young adults (N = 435) enrolled in undergraduate psychology courses. Overall, sons were more likely than daughters to report abusing their parents over the previous 12 months. Sons reported more father abuse, but mothers and fathers were targeted at similar rates overall. Partial Least Squares – Structural Equation Modelling found that risk factors for abuse interacted with parents' gender, with different predictors being associated with mother- and father-abuse, and father abuse being better accounted for by the model. Possible reasons for this disparity are discussed.

Keywords: child-to-parent abuse; child-to-parent violence; aggression; youth violence

5.1 Introduction

Child-to-parent abuse (CPA) accounts for half of all juvenile family reports and 1 in 20 adult family violence reports in the United States (Snyder & McCurley, 2008), but young people who abuse their parents are among the least understood family violence perpetrators. Research has often provided descriptive findings that offer relatively limited insight into the possible causes of CPA. For example, studies suggest that CPA is related to strained relationships with parents (e.g., Brezina, 1999; Calvete, Orue, Gamez-Guadix & Bushman, 2015; Kennedy, Edmonds, Dann, & Burnett 2010; Lyons et al., 2015) or a pattern of other antisocial behaviour (e.g., Ibabe, 2014; Herrera & McCloskey, 2003; Ulman & Straus, 2003). There has been little emphasis on theoretically informed research investigating the mechanisms by which behavioural, psychological, or relationship risk factors affect the likelihood of CPA perpetration (Simmons, McEwan, Purcell & Ogloff, 2017).

Recently, there has been increasing interest in understanding CPA from a more psychological perspective (e.g., Calvete, Orue, et al., 2015; Contreras & Cano, 2014b), which is consistent with the broader aggression literature that seeks to explain aggressive behaviour using social-cognitive theoretical frameworks suggesting psychological mechanisms of effect (Anderson & Bushman, 2002; Hamby & Grych, 2013; Finkel et al., 2012). There are two particularly prominent integrated theories of aggressive behaviour: the General Aggression Model (Bushman & Anderson, 2002) and the I³ theory (pronounced I-cubed, Finkel, 2007; Finkel et al., 2012). While, CPA research has occasionally used concepts from the GAM when generating hypotheses (e.g., Calvete, Gamez-Guadix, et al., 2015), the I³ model, which was specifically designed to address the limitations of the GAM, has received little attention in CPA research.

Although the GAM and I³ are competing theories, these frameworks are rather

complementary, each addressing the other's weaknesses. Indeed, Finkel (2014) suggested that despite generating different research questions when used independently, if used together, they provide a more compressive understanding of aggression behaviour. This paper seeks to advance the understanding of CPA by drawing upon both GAM and I³ theories to provide a more nuanced understanding of the psychological mechanisms related to CPA perpetration.

5.1.1 Theories of aggressive behaviour

Within the field of aggressive behaviour, the GAM was the first framework to integrate various theoretical perspectives with an emphasis on explaining proximal psychological mechanisms that link distal factors to aggression. It suggests that in a social encounter, the decision to act aggressively (i.e., outcome) is dependent on the characteristics of the person and situation (i.e., inputs) and the individual's cognition, affect, and physiological response at the time of the social encounter (i.e., routes). Anderson and Bushman (2002) emphasised the role of social learning in aggressive behaviour as each aggressive episode informs the decision to act aggressively in social situations in the future. Although Anderson and Bushman described a broad framework, particular attention was given to the relationship between aggressive cognitions (i.e., scripts, schemas, attitudes, and beliefs) and behaviour, which has also been the focus of much subsequent research (Calvete, Orue, Gamez-Guadix, & de Arroyabe, 2016; Dunne, Gilbert, Lee, & Daffern, 2018). This has since been criticised as being too narrow a focus, given other factors that appear to also be involved in producing aggressive behaviour (Finkel, 2007; Finkel et al., 2012).

To illustrate the limitations of the GAM, Finkel (2007) provided an example of a family violence perpetrator who has fought with his partner 20 times but has only become violent on four occasions. While this perpetrator may have aggressive cognitions, the GAM provides little insight into why people *stop* themselves from

acting aggressively on some occasions and not others. To address this gap, Finkel (2007) created the I³ theory to provide a theoretical framework of aggressive behaviour that emphasised the role of inhibitory failure in aggression action. The model proposed that the likelihood of aggressive behaviour is dependent on whether strength of Instigators (i.e., triggers) and Impelling factors (i.e., those that increase the likelihood of aggression) outweighs the Inhibiting factors (i.e., those that decrease the likelihood of aggression).

The GAM and the I³ theories largely consider the same factors but have modelled them in different ways. For instance, both the GAM and the I³ suggest that aggression typically begins with an instigating social encounter (Anderson & Bushman, 2002; Finkel, 2007). However, the GAM delineates factors related to aggressive behaviour into inputs and routes, according to whether the factor is a predisposing factor (of the person or situation) or a present internal state. In contrast, the I³ theory organises the same factors according to their function; whether they increase (i.e., impellor) or decrease (i.e., inhibitor) the likelihood of aggression. As such, inputs and routes may be categorised as either impellers or instigators, depending on whether they drive or inhibit aggressive behaviour. While the I³ theory largely views aggression as a formulaic outcome when the weight of the instigators and impellers is greater than the weight of the inhibitors, the GAM describes a cognitive appraisal and decision making process that occurs prior to aggression behaviour. Although the appraisal and decision making process is separated from the inputs and routes, the factors considered in this process could also be broadly categorised as impelling or inhibiting factors, depending on whether the appraisal of the situation increases or decreases the likelihood of aggression. (Anderson & Bushman, 2002; Finkel, 2007).

5.1.2 Instigating social encounters from CPA research

Both the GAM and I³ emphasise that aggressive episodes begin with a social encounter or instigator that initiates an aggressive impulse. The instigators that are most consistently related to general aggression (Berkowitz 1993; Geen, 2001; Magdol et al., 1997) and CPA perpetration (e.g. Brezina, 1999; Contreras & Cano, 2016a; Fawzi et al., 2013; Herrera & McCloskey, 2003; Ibabe et al., 2013b; Kennedy et al., 2010; Lyons et al., 2015; Margolin & Beaucom, 2014; Ulman & Straus, 2003) are provocation and victimisation.

In Brezina's (1999) study of 1,886 male students, aggressive parent-to-child behaviour increased the likelihood of CPA, while CPA decreased the likelihood of parent-to-child aggression. To explain these results, he hypothesised that children may use CPA to stop parent-to-child aggression, however when successful, CPA is reinforced as a useful conflict strategy and contributes to the development of aggressive behavioural scripts (Brezina, 1999). A subsequent study by Margolin and Beaucom (2014) provided some support for Brezina's hypotheses. In this 8-year longitudinal study of 93 young people and their parents, beginning when participants were aged 9 - 10 years old, Margolin and Beaucom found that past parent-child aggression predicted CPA, even when controlling for concurrent parent-child aggression. Together, these results suggest that parent-child aggression may not only increase the likelihood of individual episodes of CPA as children act in response to provocation, but also increases the likelihood of future aggressive behaviour through changing how children think about aggression as they learn that it is a normal, acceptable, and useful conflict tactic. As such, through social learning, repeated exposure to aggressive behaviour increases an individual's impelling factors or alters the personal characteristics that they poses in each potentially aggressive episode. This is wholly consistent with the GAM's account of how patterns of aggressive behaviour develop through reinforcement over time.

5.1.3 Impelling inputs and routes of CPA perpetration

Although aggression-related cognition (e.g., scripts, beliefs, schemas) could be broadly grouped within impelling factors, there is relatively little emphasis on cognition in the I^3 model, whereas according to GAM, cognition is viewed as essential to understanding how individuals learn aggressive behaviour and why they become aggressive in a given situation (Anderson & Bushman, 2002; Anderson, Gentile, & Buckley, 2007). Although aggression-related cognition is a useful treatment target (Andrews & Bonta, 2010), it has received relatively little attention in CPA research, with only a few studies suggesting that CPA is associated with antisocial attitudes (Contreras & Cano, 2016b), negative social schemata (Calvete, Gamez-Guadix, et al., 2015; Calvete, Orue, et al., 2015; Contreras & Cano, 2014b; Contreras & Cano, 2016a), and aggressive behaviour scripts (Calvete, Gamez-Guadix, et al., 2015). Given the centrality of aggression-related cognition to the GAM's explanation of aggression, this is clearly an area in need of greater research within the context of CPA.

There is some evidence to suggest that the relationship between aggression-related cognition and aggressive behaviour may be moderated by the experience of anger. Anger is a strong impellor of aggression (Finkel, 2007; Novaco, 2007) and can be viewed as either an input that increases the likelihood of aggression (I^3) or the route in which aggressive behaviour is processed (GAM; Anderson & Bushman, 2002). A recent longitudinal study that examined a multivariable model predicting CPA found that while aggressive scripts and schemas at time 1 were not related to CPA at time 2, trait anger measured at time 1 successfully predicted future CPA, as well as the presence of aggressive scripts and schemas at time 2 (Calvete, Gamez-Guadix, et al., 2015). Examination of univariate correlations revealed that the strength of the relationship between schemas, scripts and CPA appeared to attenuate over the course of a year, suggesting that aggressive scripts and schemas may be not be stable in young

people, instead fluctuating in presence (or maybe accessibility) over time (perhaps if not reinforced). These findings suggest that while aggression-related cognitions may be concurrently related to CPA, anger maybe related to the development or maintenance of such cognitions.

5.1.4 Inhibiting inputs and routes of CPA perpetration

Anderson and Bushman (2002) contend that anger is related to aggression not only through activation of aggressive cognition, but also through impairing decision making, reducing inhibitions, and prolonging aggressive potential. This failed inhibitory control is central to the I³ theory and elaborated upon in greater detail than in the GAM. Surprisingly, with the exception of Calvete, Gamez-Guadix, and colleagues (2015), the investigation of anger has largely been absent from CPA research. As such, there is limited evidence to conclude that anger increases the likelihood of CPA perpetration, let alone to provide an understanding of *how* anger is related to CPA.

However, within general aggression research, evidence suggests that the relationship between anger and aggression may be mediating by ruminative thinking (Denson, Pedersen, Friese, Hahm, & Roberts, 2011). Ruminative thinking has been shown to sustain angry affect, cognition, and physiological arousal (Pedersen et al., 2011), which depletes the cognitive resources that individuals would typically rely upon to inhibit aggressive behaviour (Ammerman, Kleiman, Uyeji, Knoff, & McCloskey, 2015; Donahue, Goranson, McClure, & Van Male, 2014; Finkel et al., 2012). Indeed, Denson and colleagues (2011) have suggested that anger rumination may deplete self-control, increasing the likelihood of emotional dysregulation and impulsive behaviour, which in turn increases aggression (Derefinko, DeWall, Metze, Walsh, & Lynam 2011; Donahue et al., 2014; Dvorak, Pearson, Kuvaas, 2013; Gratz & Roemer, 2004; Whiteside & Lynam, 2001). While there is a well-established body

of general aggression research highlighting the effects of rumination and depleted self-control on aggression and intimate partner violence (e.g., Denson, DeWall, Finkel, 2012; Denson et al., 2011; DeWall, Baumeister, Stillman, & Gailliot, 2007; Finkel et al., 2012), these concepts have not yet been investigated in relation to CPA.

5.1.5 The current study.

CPA research has recently begun to draw upon social cognitive theoretical frameworks by examining variables that have not been previously considered within the literature. For example, while research has consistently found that victimisation by a parent increases the likelihood of CPA (see Simmons, McEwan, Purcell, & Ogloff, 2017, for review), there is limited understanding of *how* victimisation relates to CPA. One potential route may be through its effect on angry affect (Calvete et al., 2013), which may in turn increase both aggression-supportive cognitions (Calvete, Gamez-Guadix, et al., 2015) and rumination, although no research has investigated the latter hypothesis. According to aggression research, rumination may decrease self-control (e.g., increased impulsivity and emotional dysregulation), thus increasing aggression (Denson et al., 2011). While recent studies have found that CPA is positively related to impulsivity (Contreras & Cano, 2016a; Rico, Rosado & Canton-Cortes, 2017), findings regarding the relationship between emotional regulation and CPA are mixed (Contreras & Cano, 2016b; Kethineni, 2004; Stewart et al., 2006). This study adds to the nascent literature by drawing on two complementary social cognitive theories of aggression to investigate CPA perpetration in young adults.

This study aims to explore familial factors potentially related to CPA directed towards mothers and fathers through social cognitive mechanisms. We investigated the extent to which witnessing parental marital aggression and victimisation by a parent are related to trait anger and aggression-related cognitions (i.e., aggression-supportive beliefs; rehearsal of aggressive scripts). We hypothesised that each of these

four variables will have direct relationships with CPA in addition to witnessing marital aggression and victimisation by parent having indirect effects on CPA through trait anger, aggression-supportive beliefs, and aggressive script rehearsal. It is hypothesised that individuals who report greater trait anger will report more frequent aggressive script rehearsal. We hypothesise that victimisation by the parent will be the strongest predictor of CPA, as it may be a proxy for provocation, as well as influencing the development of knowledge structures over time.

The study also investigates individual differences that may moderate the relationship between anger and CPA by affecting the young person's ability to inhibit aggressive behaviour. It is hypothesised that anger will have an indirect effect on CPA through rumination, negative urgency (impulsivity in the context of negative emotions), and emotional dysregulation. We hypothesised that individuals who ruminate will evidence greater emotional dysregulation and impulsive behaviour within the context of negative emotional arousal, with each of these factors directly effecting CPA. Considering the relationship between age and impulsivity (Chambers, Taylor & Potenza, 2003) and emotional regulation (Hare et al., 2008), it is also expected that age will be inversely related to these two factors, as well as to CPA perpetration.

5.2 Method

5.2.1 Sample.

Participants ($n = 435$) were aged between 18 and 25 years ($M = 20.62$, $SD = 2.17$) and enrolled in undergraduate psychology classes at a university in an Australian metropolitan centre. Most participants were female ($n = 329$; 75.6%) and identified as Australian ($n = 337$; 77.5%), with three (0.7%) identifying as Australian Aboriginal. The remaining participants identified as European ($n = 39$; 9.0%), Asian ($n = 31$; 7.1%), African ($n = 11$; 2.5%), New Zealander or Maori ($n = 7$; 1.6%), from the

Americas ($n = 5$; 1.5%), or Russian ($n = 2$; 0.5%).

5.2.2 Procedure.

Undergraduate university students were recruited online and were compensated for their participation with 0.5% added to their course grade. Participants read a plain language statement explaining that the purpose of the study was to investigate factors that differentiate between “normal versus more abusive behaviour”. After reading the plain language statement, participants clicked “I consent”. Participants completed questionnaires regarding normative beliefs about CPA and violent behaviour, psychological factors related to aggression, experiences of family aggression, and perpetration of CPA-related behaviours over the past 12 months. Participants described who raised them as a child. The majority ($n = 300$; 69.0%) reported that they were raised by both parents, followed by being raised by their mother ($n = 12$; 27.6%), their father ($n = 9$; 2.1%), or raised by others, such as grandparents ($n = 6$; 1.4%). There were no reported same-sex parental relationships or guardianships in this sample. Participants provided separate responses to the CPA questionnaires for up to two parents or guardians who raised them. In total, 427 participants reported on aggression towards their mother (or female caregiver) and 315 participants reported on aggression towards their father (or male caregiver). This procedure was approved by Swinburne University Human Research Ethics Committee (SUHREC) on 13 November 2014.

5.2.3 Measures.

5.2.3.1 CPA perpetration.

CPA was measured using the Abusive Behaviour by Children-Index (ABC-I; Simmons, McEwan, Purcell, & Huynh, 2018) a 9-item tool measuring the presence and severity of CPA, which has been validated for Australian youth aged 14-25 years and Australian parents. Participants identified how often over the past 12 months nine

potentially abusive behaviours occurred, on a 6-point scale (*Never –Once –A few times –Monthly –Weekly –Daily*). The score assigned to each point on the scale differs by item, depending on norms set by parents regarding how often the behaviour described in the item would have to occur to be abusive. For example, in the Australian sample of parents used to set scoring on the ABC-I in this study, yelling or swearing at a parent had to occur daily over 12 months to be abusive, while being physically aggressive towards a parent had to occur only once (Simmons, Purcell, & McEwan, 2018).

For each item, the point on the frequency scale at which the behaviour described is abusive receives a score of 16. If a behaviour is reported more or less frequently than the item's threshold for abuse, the item score increases or decreases by a factor of 2. For instance, scores for *Yelling or swearing at a parent* range from 0 (*once*) to 16 (*daily*), but scores for *Acted physically aggressively towards parent (e.g., hit, slap, kick, push, punch, grab, burn, strangle)* range from 16 (*once*) to 256 (*daily*). Participants were classified as abusive if they received a total summed score of 16 or higher on the ABC-I (see Simmons, McEwan, et al., 2018 for more information on scoring the ABC-I). The total ABC-I score provides a measure of the relative severity of reported behaviour, with a maximum potential score on the ABC-I of 1216 (although participants would have to endorse *daily* for all behaviours to receive this score). In this sample, scores ranged from 0 to 544 (*Mdn* = 1, *IQR* = 0-4) for behaviour towards fathers and from 0 to 198 (*Mdn* = 1, *IQR* = 0-4) for behaviour towards mothers.

5.2.3.2 Aggressive behaviour by parents.

Participants were asked to separately “consider how your parent behaved towards [his or her partner] / [you]” by indicating how frequently they witnessed their parent, or were victimised by them, using three types of aggression: verbal aggression (yell, swear, insult), minor physical aggression (push, shove, slap), or significant

physical aggression (punch, kick, beat up). Each type of behaviour was rated on a 3-point scale from *Never* (scored 0) to *Often* (scored 2). Scores ranged from 0 to 9 ($M = 1.38$, $SD = 1.54$) for witnessing marital aggression, 0 to 8 ($M = 1.33$, $SD = 1.48$) for being victimised by their mother, and 0 to 8 ($M = 1.31$, $SD = 1.43$) for being victimised by their father. All scales evidenced good internal consistency ($\alpha = .71$, $.74$, and $.73$, respectively).

5.2.3.3 Anger.

The Trait Anger subscale from the State Trait Anger Expression Inventory-2 (STAXI-II; Spielberger, 1999) was used to assess trait anger. The subscale asks participants to rate the degree to which each they identify with 10 items on a 4-point scale ranging from 1 = *Not at all* to 4 = *Very much*. Participants' scores ranged from 10-37 ($M = 17.89$, $SD = 4.90$), with higher scores representing higher levels of trait anger. The STAXI-II demonstrated good internal consistency in the current sample ($\alpha = .83$).

5.2.3.4 Aggressive script rehearsal.

The frequency of aggressive script rehearsal was measured using a single question derived from the Schedule of Imagined Violence (SIV; Grisso, Davis, Vesselinov, Appelbaum & Monahan, 2000) asking participants, "How often do you have thoughts about hurting or injuring other people?" on a scale from 0 = *Never* to 7 = *Several times a day*. Two-hundred and forty-one (65.7%) participants indicated a score greater than *Never*, indicating the presence of aggressive thoughts within the past year ($M = 1.18$, $Mdn = 1.00$, $SD = 1.43$).

5.2.3.5 Emotional dysregulation.

Participants rated the extent to which 36 questions on the Difficulties with Emotional Regulation Scale (DERS; Gratz & Roemer, 2004) applied to them on a 5-point scale ranging from 1 = *Almost Never* to 5 = *Always Almost*. The DERS contains

six subscales representing different aspects of poor emotional regulation: (1) difficulty accepting emotions; (2) difficulty in engaging in goal-directed behaviour when upset; (3) difficulty controlling impulses; (4) poor emotional awareness; (5) limited emotional regulation strategies; and (6) poor emotional clarity. Participants' responses ranged from 61 to 159 ($M = 105.50$; $SD = 21.513$), with higher scores suggesting more emotional dysregulation. The DERS demonstrated good internal consistency in this sample ($\alpha = .89$).

5.2.3.6 Rumination.

The Perservative Thinking Questionnaire (PTQ; Ehring et al., 2011) is used to assess general rumination (i.e., repetitive, intrusive negative thinking). Participants rated how often they identified 15 items on scale from 1 = *Rarely* to 4 = *Almost Always*. Participants' responses ranged from 0 to 75 ($M = 37.79$; $SD = 17.26$), with greater scores suggesting greater tendency to ruminate. The PTQ demonstrated good internal consistency ($\alpha = .96$).

5.2.3.7 Impulsivity.

The negative urgency subscale of the Short-UPPS (S-UPPS; Cyders, Littlefield, Coffey & Karyadi, 2014) was used to measure participants' tendency to act impulsively in the context of negative emotions. Participants rated their level of agreement on a scale from 1 = *Strongly Disagree* to 4 = *Strongly Agree*. The four scale items demonstrated good internal consistency ($\alpha = .80$). Participants scores ranged from 4 to 16 ($M = 9.18$; $SD = 2.91$), with greater scores suggesting greater impulsive behaviour when experiencing negative emotions.

5.2.3.8 Violent attitudes.

The Measure of Criminal Attitudes and Associates' (MCAA; Mills, Kroner & Hemmati, 2004) Violent Attitudes subscale was used. Participants responded *Agree* or *Disagree* to 12 questions regarding whether they thought violent behaviour was

appropriate (maximum possible score of 12). Participants' scores ranged from 0 to 12 ($M = 2.37$; $Median = 2.00$; $SD = 2.32$), with greater scores suggesting greater acceptance of violence behaviour. The scale demonstrated good internal consistency in this sample ($\alpha = .80$).

5.2.4 Statistical analyses.

Univariate analyses were calculated using SPSSv24 (IBM Corp, 2016), comparing participants who were categorised as abusive towards their mothers or fathers to those who were not abusive, using the ABC-I cut-off score of 16. Chi-square goodness of fit tests were calculated (reporting Fisher's exact test when expected cell counts were less than 5), with odds ratios as measures of effect size, comparing the sex of abusive and non-abusive youth. T-tests (with d as measure of effect size) compared abusive and non-abusive participants' scores on emotional dysregulation, rumination, trait anger, negative urgency, experience of victimisation, and experience of witnessing marital aggression. Mann-Whitney U tests (with θ as a measure of effect size; Newcombe, 2006) were used to compare abusive and non-abusive youths' violent attitudes and aggressive scripts as these variables were not normally distributed. Spearman's correlations were calculated between the ABC-I and the predictor variables. Pearson's Correlations were calculated to evaluate the relationships between all the predictor variables.

Partial Least Squares–Structural Equation Modelling (PLS-SEM) was used to model the relationships between each variable and CPA. PLS-SEM is a non-parametric alternative to Covariance Based-Structural Equation Modelling (CB-SEM). PLS-SEM is akin to multiple linear regression in that it strives to maximise the explained variance of the dependent variables, while CB-SEM determines how well the data fits a theory (i.e., the goodness of fit; Riou, Guyon & Falissard, 2016). PLS-SEM is a useful exploratory statistical modelling procedure because it does not require

data to be normally distributed and has less restrictive sample size requirements than CB-SEM (Hair et al., 2017). Riou and colleagues (2016) highlight that despite the criticisms of PLS-SEM (see Rönkkö, McIntosh & Antonakis., 2015), it is useful within the exploratory psychological research as it often involves the investigation of rare phenomenon, which create non-normal data distributions and small sample sizes. Further, as we conceptualise CPA as a formative latent variable (i.e., a variable that is *formed* by its indicators and does not exist without them; see Simmons, McEwan, et al., 2018), PLS-SEM is better able to model formative variables than CB-SEM (Hair et al., 2107). Hair and colleagues (2017) and Roui, Guyon and Falissard (2016) informed the analysis and reporting procedures used in this paper.

PLS-SEM was calculated using SmartPLS (Ringle, Wende & Becker, 2015). As PLS-SEM is nonparametric, there are no goodness-of-fit tests. Instead, bootstrapping was used to test for significance of path coefficients and coefficients of determination (Hair et al., 2017). Unlike CB-SEM, PLS-SEM does not include measurement error and the outcome variable's scores are inferred from the predictor variables (Riou et al., 2016). As such, the quality of the measurement model (i.e., the structure of all predictor and outcome measures) has a greater impact on results in PLS-SEM than traditional CB-SEM (Hair et al., 2017). All predictor and outcome variables must be assessed prior to investigating the structural model (i.e., how much variance the predictor variables account for in ABC-I scores).

To validate a formative variable (i.e., CPA as measured by the ABC-I), the outer weights, outer loadings, and variance inflation factors (VIFs) of the sub-indices were investigated. The outer weights indicate the relative importance of each indicator to the ABC-I, while the outer loadings show the indicators' absolute importance. Indicators with non-significant outer weights but strong outer loadings ($>.50$) were retained. VIFs assess collinearity by accounting for the amount of variance of each

indicator is attributable to other indicators (Hair et al., 2017). Indicators with VIFs lower than 10 were retained. To validate reflective measures (i.e., all predictor variables), each must demonstrate sufficient internal consistency (i.e., Cronbach's $\alpha > .70$) and significant indicator loadings ($p < .05$). Additionally, the predictor measures were assessed to ensure convergent validity and discriminant validity (Riou et al., 2016). For convergent validity, Average Variance Extracted (AVE) should be above .50, suggesting that it explains more than half of the variance of its indicators (Hair et al., 2017). Discriminant validity was established for each measure by ensuring the square root of the AVE is greater than its correlation with any other indicator.

After confirming the validity of the measurement model, the structural model was estimated for mother abuse and father abuse separately. Adjusted R^2 was used to determine the amount of variance explained by the model as the strength of R^2 is related to the number of predictors in the model. Adjusted R^2 counters this bias by reducing the coefficient of determination as the model becomes more complex (Hair, Sarstedt, Hopkins, Kuppelwieser, 2014).

5.3 Results

5.3.1 Univariate analyses.

Overall, 14.7% of the sample was categorised as abusive towards a parent (Mothers: $Mdn = 1$; $IQR = 4$; range = 0 – 198; 12% categorised as abusive towards mothers; Fathers: $Mdn = 1$; $IQR = 4$; range = 0 – 544; 12% categorised as abusive towards fathers). Sons (22.6%; $n = 24$) were significantly more likely to be abusive towards a parent than daughters (12.2%; $n = 40$; $\chi^2 (N = 435, 1) = 7.02, p < .01$, OR = 2.12 (95% CI: 1.21-3.71)). However, when mothers and fathers were examined separately, sons were only more likely to abuse fathers (20.0%; $n = 16$) than daughters (8.5%; $n = 20$; $\chi^2 (N = 315, 1) = 7.78, p = .05$; OR = 2.69, (95% CI: 1.14-5.49)). Sons (16.0%; $n = 17$) and daughters (10.6%; $n = 34$) did not significantly differ in frequency

of mother abuse ($\chi^2 (N = 427, 1) = 2.25, p = .13$).

Sixty-four percent ($n = 278$) of participants lived with a parent or guardian. Rates of father abuse did not differ significantly between young people who lived at home (13%; $n = 29$) and those who did not (7%; $n = 7$; $\chi^2 (N = 315, 1) = 2.22, p = .14$). However, young people who lived at home (15%; $n = 41$) were more likely than those who did not (6%; $n = 10$) to be categorised as abusive towards their mothers ($\chi^2 (N = 425, 1) = 7.29, p < .01$; OR = 2.63)

Few participants reported that they injured (i.e., bruise, sprains, welts, etc.) their mother ($n = 4$; 1%) or father ($n = 6$; 2%). Only one participant reported that their mother sustained a major injury (e.g., concussion, broken bones, or teeth, etc.) after he acted physically aggressively towards her. Despite the small proportion of participants who reported injuring their parents, males were significantly more likely than females to have injured their father (5% boys versus 0.9% girls; $p = .04$, Fisher's exact test, OR = 6.13 (95% CI: 1.10-34.14)), but there was no sex difference in injuries to mothers (boys 1.9% versus girls 0.6%, $p = .26$, Fisher's exact test).

Table 5.1 displays the univariate relationships between CPA and potential risk factors for abuse, according to the sex of the abused parent. Participants who abused their mother had higher scores on all potential risk factors, with the exception of violent attitudes. Youth who abused their fathers received significantly higher scores on all risk factors for abuse with the exceptions of emotional dysregulation, rumination, and violent attitudes. Age did not differ significantly between abusive and non-abusive youth for either parent.

Notably, the endorsement of aggression-related cognitions (i.e., scripts and attitudes) was very low in our sample overall, and amongst those categorised as abusive. Indeed, 34% of participants who were categorised as abusing their mothers denied thinking any aggressive thoughts within the past year, and the same was true

of 26% of participants who abused their fathers. Similarly, 21% of participants who were categorised as abusive towards their mother and 25% who were abusive towards their father endorsed no violent attitudes.

Table 5.1

Comparisons of Risk Factors for Abuse According to Parents' Sex

Risk Factors	Mother N = 427				Father N = 315			
	Abusive	Not Abusive			Abusive	Not Abusive		
	<i>M(SD)</i>	<i>M(SD)</i>	<i>t</i> or <i>U</i>	<i>d</i> or θ	<i>M(SD)</i>	<i>M(SD)</i>	<i>t</i> or <i>U</i>	<i>d</i> or θ
Age	20.25 (2.37)	20.69 (2.14)	-1.36		20.17 (2.49)	20.62 (2.13)	-1.17	
Violent Attitudes	3.06 (3.19)	2.27 (2.19)	8691.50		2.51 (2.27)	2.24 (2.14)	4689	
Aggressive Scripts	1.78 (1.88)	1.10 (1.35)	7514.50*	.40	1.94 (1.77)	1.00 (1.32)	3414.50**	.35
Emotional Dysregulation	111.29 (23.37)	104.81 (21.25)	2.02*	.29	107.47 (22.27)	104.49 (21.33)	0.79	
Rumination	42.75 (17.48)	37.23 (17.17)	2.15*	.32	41.06 (15.36)	36.62 (17.01)	1.49	
Trait Anger	21.22 (6.26)	17.44 (4.55)	4.16***	.69	20.75 (5.22)	17.22 (4.31)	3.89***	.74
Victimisation	2.22 (1.96)	1.21 (1.37)	3.67***	.61	2.64 (1.67)	1.35 (1.49)	4.46***	.91
Marital Aggression	2.24 (1.70)	1.28 (1.49)	3.80***	.60	2.24 (1.65)	1.35 (1.49)	3.33***	.57
Negative Urgency	10.45 (2.98)	9.05 (2.87)	3.26**	.48	10.47 (2.69)	8.99 (2.83)	2.98**	.54

** $p < .01$; *** $p < .001$

Note: Mann Whitney U with θ as measure effect size (Newcombe, 2006) used for Violent Attitudes and Aggressive scripts; t-test with d as measure of effect size used for remaining calculations

5.3.2 Validity of the measurement model.

For both mothers (.23, $p = .21$) and fathers (.01, $p = .98$), the coercive behaviour subindex of the ABC-I had an insignificant outer weight, but strong outer

loadings (.60 and .79, respectively, $p < .01$ for both sexes), suggesting that this subindex has absolute, but not relative, importance to CPA. This is consistent with results in the development sample for the ABC-I (see Simmons, Purcell & McEwan, 2017). For fathers, the outer weights of the verbal aggression and physical aggression subindices were significant (.45 - .69, $p < .05$ for all outer weights), the outer loadings were considered strong (.81 - .92, $p < .001$ for all outer loadings), and the VIFs were well below the advised cut-off of 10 (1.46 - 3.06). For mothers, the outer weights of the verbal aggression and physical aggression subindices were significant (.36 - .73, $ps < .05$) the outer loadings of these subindices were considered strong (.56 - .92, $ps < .001$), and the VIFs were well below the advised cut-off of 10 (1.07 - 1.32).

Table 5.2

Predictor Variables Measurement Validity Statistics According to Parent Sex

Construct	Mothers				Fathers			
	Loading range	α	AVE	$\sqrt{\text{AVE}}$	Loading range	α	AVE	$\sqrt{\text{AVE}}$
Victimisation	.73-.84	.67	.60	.77	.70-.84	.68	.55	.74
Marital								
Aggression	.70-.85	.64	.58	.76	.66-.84	.60	.61	.78
DERS	.72-.89	.87	.65	.81	.71-.90	.87	.66	.81
Rumination	.72-.87	.96	.64	.80	.70-.88	.96	.63	.79
Negative								
Urgency	.77-.81	.77	.68	.82	.80-.87	.77	.69	.83
Trait Anger	.55-.81	.86	.48	.69	.48-.76	.84	.44	.67

AVE = average variance extract; $\sqrt{\text{AVE}}$ = square root of the average variance extracted; DERS = Difficulties with Emotional Regulation Scale

The validity statistics for predictive measures used in the measurement model are shown in Table 5.2. The MCAA's Violent Attitudes scale was excluded from multivariable analyses due to poor convergent validity (AVE = .29), discriminant

validity ($\sqrt{\text{AVE}} = .54$), and low outer loadings (.18-.76). Additionally, questions were removed from the STAXI-II (*I feel infuriated when I do a good job but get a bad evaluation*) and S-UPPS (*When I feel rejected, I will often say things that I later regret*) due to poor factor loadings (.06 and -.76, respectively). The Poor Emotional Awareness subscale of the DERS was also removed as it was negatively related to the other subscales (outer loading = -.07). Parent-child aggression and witnessing parents' aggression fell slightly below the recommended level of internal consistency of 0.70 (Hair et al., 2017).

Table 5.3

Spearman's Correlations Between ABC-I Total Score and Each Predictor Variable

	1	2	3	4	5	6	7
1. ABC-I total		.30***	.26***	.12*	.13*	.08	.20***
2. Victimisation	.26***		.31***	.18**	.17**	.21***	.27***
3. Marital aggression	.28***	.39***		.12*	.12*	.09	.11
4. DERS	.13**	.15**	.13**		.71***	.52***	.31***
5. Rumination	.11*	.12**	.07**	.73***		.50***	.21***
6. Negative Urgency	.08	.14*	.12*	.50***	.50***		.41***
7. Trait Anger	.24***	.27**	.22***	.36***	.40***	.39***	

* $p < .05$; ** $p < .01$; *** $p < .001$

Note: Mother abuse on top half and father abuse on bottom half of table. ABC-I = Abusive Behaviour by Children Index; DERS = Difficulties with Emotional Regulation Scale

Nevertheless, these items were retained because their loadings were appropriate. For convergent validity, Trait Anger's AVE fell below the recommended cut-off of .5. However, it was retained due to theoretical importance, good internal consistency, and strong outer loadings. In order to evaluate discriminant validity, the square roots of AVE, as seen in Table 5.2, were compared to the correlations in Table 5.3. Most of the correlations between indicators are less than the individual indicators'

AVE, evidencing good discriminant validity, with the exception of mother's aggression to child and marital aggression ($r = .83$). However, as these items are understandably related, a high correlation is not surprising, and both were retained for theoretical reasons.

5.3.3 Structural model.

5.3.3.1 CPA towards mothers.

Figure 5.1 shows the model for mother-directed CPA, which accounted for 17% of the variance in ABC-I scores for mother abuse (Adjusted $R^2 = 0.17$, $p < .001$). Only three variables had significant direct effects on CPA: trait anger ($\beta = .30$, $p < .001$), witnessing marital aggression ($\beta = .19$, $p < .001$) and age of participants ($\beta = -.13$, $p < .01$). When considering both direct and indirect effects, witnessing marital aggression had a significant total effect on total ABC-I scores for mothers ($\beta = .28$, $p < .01$). Victimisation by mother was not significantly related to the ABC-I score ($\beta = -.08$, $p = .70$), contrary to our provocation hypothesis. However, this may have been because of the close relationship between marital aggression and victimisation by mother ($\beta = .93 < .001$). Indeed, when marital aggression was removed from the model, victimisation by mother became significant ($\beta = .16 < .01$). This suggests that witnessing marital aggression fully accounts for the relationship between victimisation by mother and CPA.

While witnessing marital aggression was related to an increase in anger ($\beta = .29$, $p < .001$) and aggressive scripts ($\beta = .36$, $p < .01$), the frequency of aggressive scripts did not directly predict scores on the ABC-I. Similarly, while anger was related to rumination ($\beta = .41$, $p < .001$), emotional dysregulation ($\beta = .09$, $p < .05$), and negative urgency ($\beta = .22$, $p < .001$), these three variables did not predict CPA towards mothers.

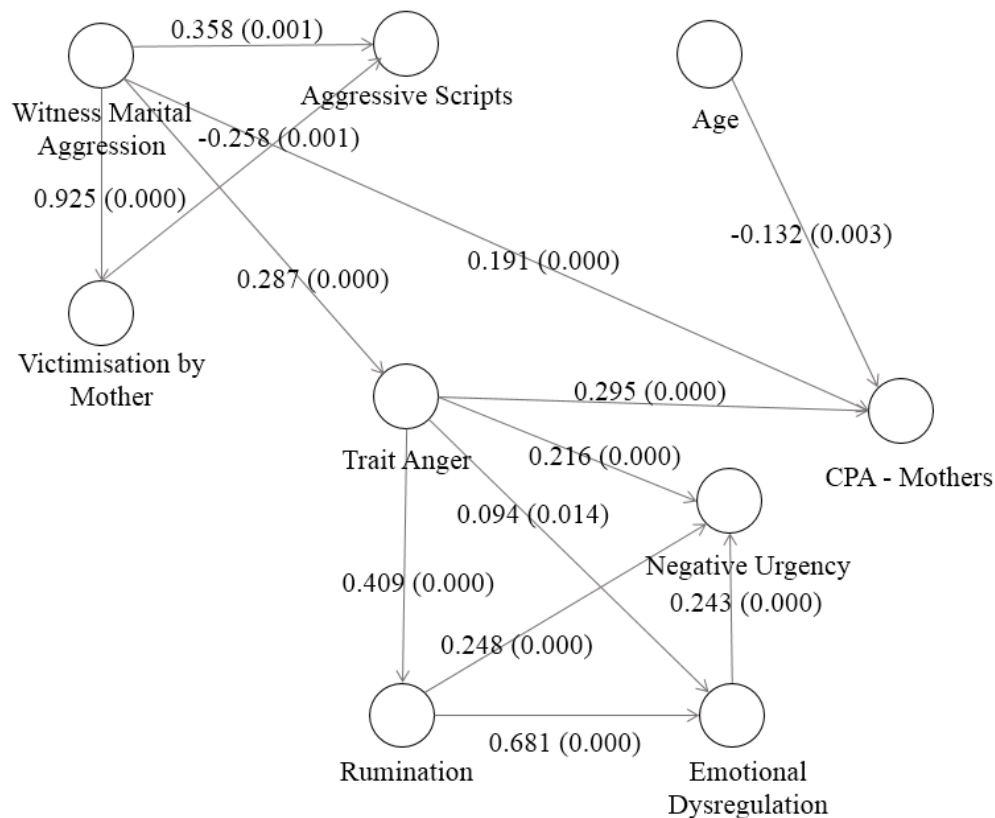


Figure 5.1. PLS-SEM predicting mother abuse.

5.3.3.2 CPA towards fathers.

The model for father-directed CPA is shown in Figure 5.2. The model accounted for 34% of the variance in ABC-I total scores for father abuse (Adjusted $R^2 = 0.34$, $p < .001$) and differed substantially from the model for mothers. Frequency of aggressive script rehearsal ($\beta = .13$, $p < .05$) and victimisation by father ($\beta = .62$, $p < .001$) had significant positive direct effects on CPA towards fathers, while trait anger ($\beta = .13$, $p = .052$) and rumination ($\beta = .13$, $p = .057$) may well have had significant direct relationships to CPA against fathers in a larger sample. However, when considering the total effect of trait anger on ABC-I scores, through rumination, the relationship was significant ($\beta = .18$, $p = .01$). Emotional dysregulation had an unexpected significant inverse direct effect on ABC-I scores ($\beta = -.17$, $p < .05$; discussed further below) as did witnessing marital aggression ($\beta = -.25$, $p < .05$). On further investigation, it was revealed that witnessing marital aggression had a positive

total effect ($\beta = .24, p < .001$) due to a strong positive indirect effect ($\beta = .49, p < .001$) through increased aggressive scripts and trait anger.

Similar to the model for mothers, many of the predictors were related to each other. Witnessing marital aggression was related to victimisation by fathers ($\beta = .68, p < .001$), anger ($\beta = .26, p < .001$), and aggressive script rehearsal ($\beta = .17, p = .001$). Contrary to expectations, victimisation by father was not related to aggression scripts in the model. However, when witnessing marital aggression was removed from the model, the relationship between victimisation and scripts became significant ($\beta = .16, p < .01$). This suggests that witnessing marital aggression fully mediated the relationship between victimisation and aggression scripts. Age was also inversely related to scores on the ABC-I ($\beta = -.08, p = .05$), but to a lesser extent than for mothers. Negative urgency was not related to ABC-I scores. Rumination predicted emotional dysregulation ($\beta = .70, p < .001$) and negative urgency ($\beta = .20, p < .001$ and $\beta = .29, p < .001$).

Due to the unexpected negative relationship between emotional dysregulation and father abuse, these two variables were modelled graphically (see Figure 5.3). A median split was used to divide participants according to low- and high-levels of emotional dysregulation. This graph suggests that while abusive youth were more likely than not to have higher levels of emotional dysregulation (i.e., 58% above median), there were also high levels of dysregulation among non-abusive youth (i.e., 46% above median), making it difficult to differentiate the two groups.

5.4 Discussion

Drawing upon two complementary models of aggression (i.e., GAM and I³ theory), this study explored social-cognitive factors related to CPA, accounting for both the frequency and severity of the pattern of behaviour. This was the first study to differentiate abusive and non-abusive young people using an empirically-derived

threshold, as has been recommended in the literature (Hollenstein & Lougheed, 2013; Kennedy et al., 2010). In this sample, 1 in 6 youth were abusive to at least one parent, as defined by CPA social norms that were relevant to the sample (Simmons, Purcell, et al., 2018). Univariate results suggested that participants who abused their mothers reported more family violence (i.e., exposure to marital violence and victimisation by parent), aggressive scripts, trait anger, and characteristics associated with self-regulation deficits (i.e., rumination, emotional dysregulation, and negative urgency).

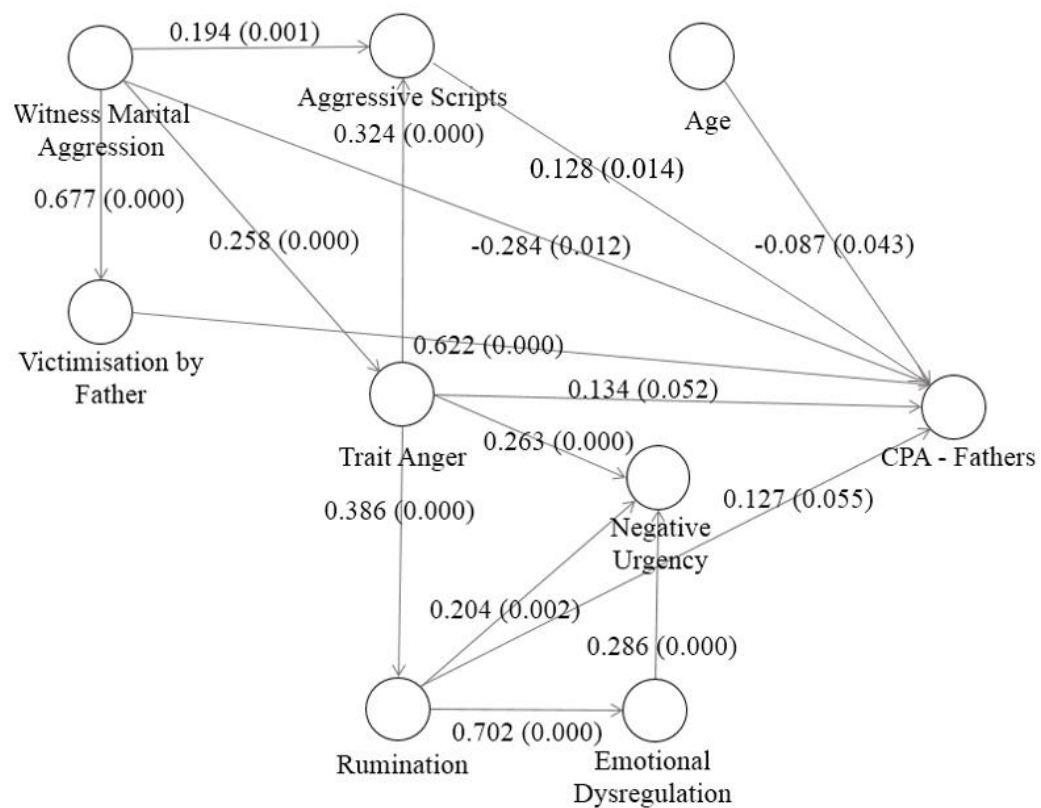


Figure 5.2. PLS-SEM predicting father abuse.

In contrast, participants who abused their fathers did not significantly differ from non-abusive youth on rumination and emotional dysregulation, but did report greater levels of family violence, aggressive scripts, trait anger, and impulsivity. While abusive youth endorsed more violent attitudes more than non-abusive youth, the difference was not significant.

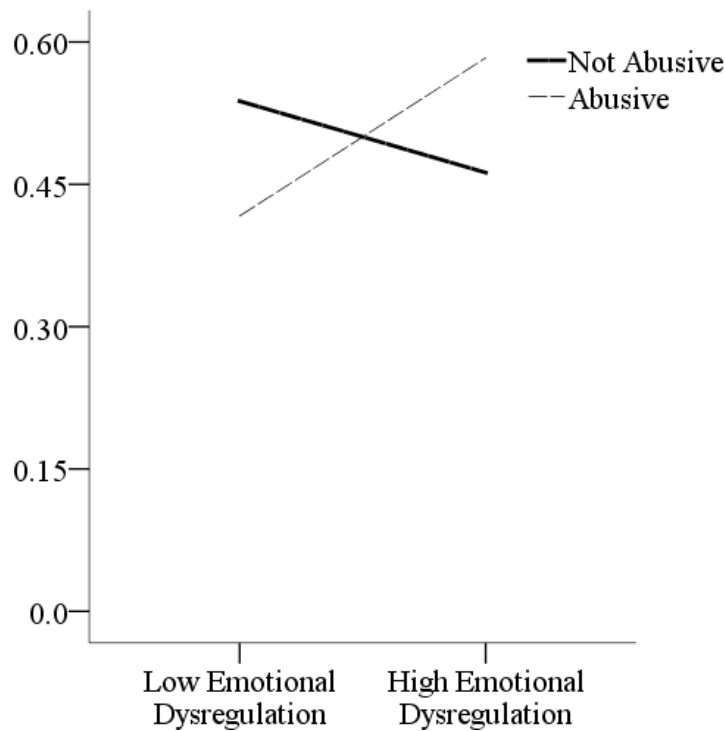


Figure 5.3. Proportion of young people with difficulties in emotional regulation scale scores above or below the median plotted according to participants' father-abuse status.

Scores on the ABC-I for mothers and fathers were modelled separately. The results provided an interesting, but complex, picture of social-cognitive factors related to CPA. Despite significant univariate results for almost all variables, only three variables were significant in the multivariable model for behaviour towards mothers, accounting for 17% of variance in ABC-I scores. In contrast, the model accounted for 34% of the variance in ABC-I scores for fathers and all the variables that were related at the univariate level were significant in the model (as well as emotional dysregulation, which was not related at the univariate level). The findings suggested that the factors that were broadly related to both the GAM and I³ theory were significant. However, aggressive cognitions (i.e., scripts) and inhibitory failure (i.e., emotional dysregulation, negative urgency), which differentiate the GAM from I³

models, did not significantly add to the prediction of CPA.

5.4.1 Mother-directed CPA.

The model predicting ABC-I scores for mothers, did not appear to fit well within the GAM or I³ framework. Only witnessing marital aggression and trait anger had positive direct effects on CPA, while age had the expected inverse relationship. The relationship between victimisation by mother and CPA failed to account for any unique variance in the model when exposure to marital aggression was also included, as most mothers who were aggressive towards their children were also in aggressive marital relationships. Although this finding was contrary to our hypothesis and previous research suggesting that victimisation has a greater effect than exposure to violence on CPA (e.g., Browne & Hamilton, 1998; Ulman & Straus, 2003), it was consistent with research suggesting that mothers who experience family violence have a greater potential for child abuse (Casanueva & Martin, 2007; Margolin, Gordis, Medina & Oliver, 2003) and higher rates of child maltreatment (Chan, 2011)

With regards to psychological mechanisms of effect, we investigated the role of impelling (i.e., aggression-related cognitions and trait anger) and disinhibiting inputs (i.e., emotional dysregulation and negative urgency impulsivity). While trait anger was directly related to ABC-I scores for both mothers and fathers, as well as to increased aggressive script rehearsal, rumination, and emotional dysregulation; anger did not have an indirect effect on ABC-I scores for mothers through aggressive cognition as hypothesised. It may be that anger has multiple routes of effect on aggression beyond that of increasing rumination or script rehearsal, such as interfering with moral reasoning (Anderson & Bushman, 2002) or perspective-taking (Mohr, Howells, Gerace, Day & Wharton, 2007). It is possible that when angry, abusive or aggressive youths have such a poor understanding of their parents' perspective that they perceive their behaviour as acceptable and/or become unmotivated to inhibit it.

In addition to impression management, this may help to explain why a substantial number of abusive young people in our sample did not endorse aggression-supportive cognition overall but were still aggressive towards a parent.

Notably, the model explained considerably less variance in ABC-I scores for mothers than fathers. This may be because CPA by sons and daughters was simultaneously modelled due to sample size limitations. Previous research suggests that there are gender differences in risk factors for perpetration (e.g., Calvete, Orue, et al., 2015; Ibabe et al, 2013a), particularly in the prediction of mother abuse (Ibabe et al., 2013b). For example, Ibabe and colleagues (2013b) found that the risk factors predicting CPA by sons failed to account for any of the variance in daughter-to-mother abuse. As males and females reported similar rates of mother abuse in our study, differences in risk factors may have resulted in an overall null result.

5.4.2 Father-directed CPA.

The model predicting ABC-I scores for fathers accounted for twice the variance explained by the model for mothers. This exploratory model provided evidence that the risk factors for young adults who abuse their fathers are similar to those in general aggression and IPA research (Anderson & Bushman, 2002; Finkel et al., 2012). Our first hypothesis that provocation would be the strongest predictor of CPA was confirmed in the father model. For every one-point increase in father-to-child aggression, ABC-I scores for fathers increased by .62. Contrary to expectations, witnessing marital aggression had a negative direct effect on ABC-I scores. However, due to the strong positive indirect effect through victimisation by father, witnessing marital aggression had an overall positive effect on ABC-I scores for fathers. This competitive mediation may indicate that young people who witness marital violence by their father self-protectively inhibit aggression towards their father unless directly provoked.

When considering the role of psychological mechanisms of effect, aggression-related cognitions (i.e., aggressive script rehearsal) were related to higher ABC-I scores for fathers. Aggressive scripts also partially mediated the relationships between both trait anger and witnessing marital aggression on father-directed CPA. These findings are consistent with research that uses the GAM model, which suggests that individual vulnerabilities (e.g., frequent aggressive thoughts) increase the likelihood of aggressive behaviour in young people who were exposed to violence, or with an angry temperament (Musher-Eizenman et al., 2004). The relationship between victimisation by father and aggressive script rehearsal was fully mediated by marital aggression, suggesting that witnessing aggression may result in aggressive cognition, whereas victimisation may result in depressive cognitions (e.g., Harper & Arias, 2004).

Unfortunately, we were unable to investigate the role of violence-supportive attitudes in the multivariate model due to problems with the structure of the tool in this sample. The structural problems were likely a result of participants rarely endorsing violent beliefs, meaning that the few questions that were commonly endorsed were inversely related to other items on the MCAA. In our sample, even amongst abusive youth, the average number of violent attitudes endorsed was 2.5-3.1 out of 12, slightly lower than with past research using the MCAA with violent offenders (i.e, 3.2; Mills et al., 2004). It is possible that the MCAA, which was developed and validated in male offenders, was not an appropriate measure in this sample of predominantly female young people. The lack of univariate relationship between violent attitudes and CPA may also reflect the fact that CPA involves behaviours other than physical aggression. Therefore, abusive youth may not endorse the use of physical violence on the MCAA, despite engaging in non-physical forms of CPA such as belittling, controlling, or intimidating their parent(s).

With regards to the experience and expression of emotion, trait anger played a direct role in father-directed CPA, in line with our hypothesis and previous research (Calvete, Gamez-Guadix, et al., 2015; Novaco, 2007). Moreover, greater levels of trait anger were related to increased impelling personal factors (i.e., aggressive script rehearsal), as well as greater disinhibiting factors (i.e., rumination and negative urgency). Similar to previous research (Pedersen et al., 2011), rumination appeared to mediate the relationship between anger and father-directed CPA. However, negative urgency was not significant in our model, contrary to previous findings linking this disinhibited behaviour when upset to intimate partner abuse (Derefinko et al., 2011). Interestingly, emotional dysregulation was *negatively* related to father-directed CPA, which can be, at least in part, attributed to the overall high level of emotional dysregulation in our non-abusive group. It is also possible that there is a competitive mediation accounting for some of the negative effect. Zhao, Lynch, and Chen (2010) suggest that unexpected negative results such as these signal that there are variables missing from the model that are necessary to explain the effect. In order to clarify this, future research may benefit from investigating specific emotional regulation strategies related to aggression, such as emotional over control and under control (see Robertson et al., 2012), as well as other types of impulsivity, such as lack of pre-meditation, which have been linked to general violence (Derefinko et al., 2011).

5.4.3 Gender interaction in abusive behaviour.

Males were significantly more likely than females to have been abusive towards their parents in this sample. Specifically, males exhibited more abusive behaviour towards their fathers. While this finding appears to be contrary to most community CPA research which has found sex symmetry in perpetration (see Simmons et al., 2017), these results support the hypothesis that the pattern of parental abuse changes according to the young person's age. Research investigating older

adolescents or young adults, like the sample used in this study, has often found that there are higher rates of father abuse among older males (Agnew & Huguley, 1989; Peek et al., 1985; Walsh & Krienert, 2007), whereas there is a drop in the overall rate of CPA for females (Snyder & McCurley, 2008). While our results found that CPA is inversely related to age for both males and females, the relationship was stronger for females. This provides further evidence that females may desist from CPA earlier, which is consistent with the wider gender-sensitive antisocial behaviour literature (Odgers et al., 2008).

5.4.4 Limitations and future research.

Although this study investigated differences in pathways to perpetration for mother abuse and father abuse, there were too few male participants to examine gendered pathways for perpetration. Previous research has identified sex differences in factors influencing CPA (e.g., Calvete, Orue, et al., 2015; Ibabe et al, 2013a; Ibabe et al., 2013b). The lack of gender-sensitivity in our perpetration analysis may have obscured results in the mother model in particular, as males and females were equally likely to abuse their mothers. However, as males were more likely to abuse their fathers in this sample, the model may provide a clearer representation of predictors for son-to-father abuse.

While this study attempted to investigate social-cognitive correlates of CPA, the MCAA, which measures violence-supportive attitudes, was not valid in our sample, limiting our investigation of aggression-supportive knowledge structures, which are central to the GAM. Regardless, it is notable that even at the univariate level, both aggressive scripts and violent attitudes were endorsed at unexpectedly low rates by abusive youth. This may reflect impression management, which was not measured in this study. However, as the measurement of aggressive scripts uses emotive language asking participants if they think about *hurting* or *injuring* others, the

low responses may reflect also reflect the fact that such thoughts are relatively uncommon in non-offender samples, or that young people may engage in post-hoc justification or minimisation that means they do not easily recall infrequent thoughts about such socially unacceptable topics.

Further, while a variety of social-cognitive factors were investigated in this study, not all aspects of the GAM or I³ could be tested. Future research could draw greater inspiration from the I³ model which provides somewhat more guidance regarding the types of factors that may increase or decrease the likelihood of aggression, relative to the GAM. Within the I³ framework, Impellers and Inhibitors are grouped according to evolutionary and cultural factors (e.g., biological or social norms), dyadic factors (i.e., factors specific to the relationship in which aggression occurs), personal factors (i.e., factors of the potentially aggressive individual), and situational factors (e.g., affective, cognitive, and arousal at time of situation; Finkel, 2007). Considering the unique relationship dynamics involved in CPA, there may be dyadic or cultural factors that are particularly important in CPA perpetration that have yet to be explored in other aggression research. Future research would benefit from creating an integrated theory of CPA that combines both I³ theory and GAM as well as addresses the unique aspects of the child-parent relationship.

5.4.5 Conclusions.

Considering the cross-sectional nature of this study, we can only conclude that there are correlational rather than causal relationships between the predictors in the model and CPA. However, drawing upon two theoretical frameworks, this research provides initial evidence to assist with understanding the social-cognitive processes that may connect exposure to familial violence and CPA. The results of this study suggest that, regardless of whether youth target mothers or fathers, CPA perpetrators report higher levels of anger, which may present a useful treatment target in

conjunction with treatment of aggression-related cognition and family risk factors (e.g., conflict tactics). Further, this research adds to the literature by highlighting that CPA does not stop at the arbitrary ‘adult’ age of 18 years, with 1 in 7 participants in our sample reporting abuse. Considering the rising age at which young people move out of home in Western countries (Australian Bureau of Statistics, 2009; Eurostat, 2015; Vespa, Lewis & Krieder, 2013), abuse by young adult children is only likely to increase in importance, yet young adult perpetrators of CPA have received relatively little attention in academic or social discussion of the phenomenon. In addition to highlighting new avenues of research into potential causes of CPA, the results of this study underscore the need for increased research and policy attention to young adult perpetrators.

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Chapter 6: Integrated Discussion

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6.1 Introduction

This thesis aimed to advance understanding of child-to-parent abuse (CPA) by addressing two research aims: (1) improve the measurement of CPA and (2) advancing understanding of individual and familial factors related to CPA.

Until relatively recently, CPA research was primarily exploratory, lacking purposeful hypothesis testing, consideration of the impact of culture on abuse, and integration with related theoretical frameworks. To progress from exploratory research to hypothesis testing and eventually the development of a falsifiable explanatory theory of CPA, it is essential to address gaps in understanding to inform relevant hypotheses.

Drawing upon the gaps in the literature that were highlighted by the review in Chapter 2, this thesis explored research questions pertaining to social, personal, and familial factors related to CPA perpetration, through three related empirical Chapters. First, in Chapter 3, the Beliefs About Child-to-Parent Abuse Questionnaire (BACPAQ) was used to investigate Australian social norms regarding CPA (Research Question [RQ] 3.3 from Chapter 2). The aim of this chapter was to better understand the frequency at which disrespectful or rude behaviour is perceived by parents as crossing the threshold from normative to abusive. These thresholds informed the content of Chapter 4 by determining the scoring procedure for the Abusive Behaviour by Children- Indices (ABC-I). The ABC-I was designed to address limitations of scoring methods used by existing CPA measures by considering both the nature *and* frequency of behaviour when measuring the presence and severity of abuse (Research Aim 1). In Chapter 5, ABC-I scores were used to investigate personal and familial risk factors for CPA, with different models for mothers and fathers (RQ 2.1.2 in Chapter 2; Research Aim 2). The models investigated specific research questions posed in Chapter 2, such as the relationships between CPA and individual psychological factors

(RQ 1.1 in Chapter 2) and witnessing or experiencing family violence (RQ 2.5 in Chapter 2). Chapter 5 was also one of the first studies to investigate abusive behaviour among young adults (RQ 1.3 in Chapter 2).

This integrated discussion contains five sections that draw together and discuss findings from each of the three empirical studies. The first provides a general summary of the primary findings from the three papers. Second, the integrated discussion contextualises the results within the broader CPA literature and other relevant bodies of literature. The third section discusses the limitations of the research methodology and the ABC-I will be critically reviewed. The fourth section considers clinical implications of this research. Lastly, future directions will be discussed before a brief conclusion to the thesis is provided.

6.2 Summary of the Research Findings

Chapter 3 described the frequency at which parents and youth perceived various child-to-parent behaviours as abusive. Parents and youth unanimously agreed that all but four of forty behaviours taken from the family violence literature had the potential to be abusive. Parents perceived that any physical aggression, regardless of injury constituted abuse. However, the thresholds for non-physical aggression to become abusive ranged from *once* (e.g., made parent do something humiliating) to *several times a day* (e.g., yelling at a parent).

Parent and youth differed regarding their perceptions of the frequency at which behaviours became abusive for almost one third of the behaviours. Typically, youth evidenced more permissive thresholds for abuse (i.e., belief that the behaviour had to occur more often to constitute abuse). Youth were more permissive than parents of financial control, intimidation, and physical aggression that did not result in injury.

Parents were more permissive of two behaviours that related to purposefully making a parent feel guilty or trying to restrict their behaviour. The discrepancy in the

perceptions of youth and parents for these two behaviours may reflect young people's limited understanding of the responsibilities of parents. For instance, parents regularly have to put their children's need before their own, and often describe feeling guilty for not living up to expectations as a parent (Martinez, Carrasco, Aza, Blanco & Espinar, 2011). Nevertheless, parents recognised that if young people used these behaviours daily, it would exceed normative parenting experiences and become abusive.

Chapter 4 described the development and validation of the ABC-I in two empirical studies. The thresholds for abuse that were determined by parents in Chapter 3 were used to create the scoring procedure for the ABC-I. Any behaviour that met the threshold for abuse according to parents received a score of 16. Any behaviour that occurred more or less frequently relative to the threshold for the specific behaviour received a score that increased or decreased, respectively, by a factor of 2. There was an 89% chance that a parent who perceived their child's behaviour as abusive would receive a higher total score on the ABC-I compared to a parent who did not. This is equivalent to a very large effect size (Rice & Harris, 2005). This result suggests that the ABC-I's novel scoring procedure provides an accurate reflection of parents' perceptions of the severity of their child's behaviour.

When the ABC-I was used in a sample of youth aged 14-25 years, males were significantly more likely than females to be categorised as abusive, particularly towards their fathers. However, mothers and fathers were equally likely to be identified as targets of abuse. When investigating convergent validity, the total ABC-I score was moderately correlated with results on the Child-to-Parent Abuse Questionnaire (CPAQ; Calvete et al., 2013). However, the ABC-I differed from the CPAQ in regards to which participants were categorised as abusive. Overall, 16% of participants were categorised as abusive towards their parents according to the ABC-I, compared to 41% of participants being categorised as abusive on the CPAQ. These

results suggest that the ABC-I has a more stringent threshold for abuse than the CPAQ and may be better able to identify patterns of non-normative behaviour in youth.

Chapter 5 presents a significant addition to the CPA literature by testing multivariate models of individual and familial factors drawn from prominent social-cognitive theories of aggression in a young adult sample (aged 18 to 25 years). The risk factors for higher scores on the ABC-I differed significantly according to the target parent's gender. This study demonstrated for the first time that the core risk factors for aggression and abuse towards both mothers and fathers were trait anger, younger age, and witnessing marital aggression, each of which accounted for unique variance in both models. However, the relationship between witnessing marital aggression and scores on the ABC-I for behaviour towards fathers was more complex. It appeared that young people who witnessed aggression were actually less likely to abuse their fathers than those who did not witness aggression, unless they were directly victimised by their father, which had a significant moderating effect on the relationship. While the model only explained 17% of the variance in ABC-I scores for mother abuse, it explained 35% of variation in ABC-I scores for father abuse. This was likely due to the significant role of a range of other risk factors in the father model. In addition to trait anger and exposure to family violence, four other variables (victimisation by father, aggressive scripts, emotional dysregulation, and general rumination) were related to increased aggression and abuse towards fathers. The differences in models according to target's gender highlights the need for gender sensitive research into CPA.

Taken together, these three empirical chapters address the two overarching aims of this thesis. The discussion below integrates the findings of Chapters 3 and 4 to discuss the implications of improved measurement of CPA (Research Aim 1) and

the progress made in understanding individual and familial characteristics of CPA throughout the thesis (Research Aim 2)

6.2.1 Research Aim 1: Improving the measurement of CPA.

To improve the measurement of CPA, this thesis introduced the BACPAQ, a questionnaire to determine what constitutes abuse according to social norms, and the ABC-I, a set of indices to measure the presence and severity of abuse. The BACPAQ was used to identify social norms concerning the frequency at which behaviours stop being normative and become abusive within the child-parent relationship. Consistent with theoretical definitions of abuse (Cottrell, 2001; Holt, 2013), a variety of physical, psychological, financial, and verbal behaviours were perceived by parents as having the potential to be abusive. These categories of behaviours were subsequently represented on the ABC-I.

According to parents, all physically aggressive behaviours were considered abusive after only one incident, regardless of whether the behaviour caused injury. This is consistent with Straus' (1990) contention that injury should not be equated with abuse, as the presence or extent of injury is to some degree contingent upon characteristics of the target (e.g., some individuals may be more injury prone), rather than the severity of the act that caused the injury. Nevertheless, understanding the severity of injuries caused by abuse is important as criminal offences are often differentiated according to the extent of the injury (e.g., assault, grievous bodily harm, homicide). As such, the ABC-I provides the option to collect information regarding the extent of injuries, however, based on social norms identified using the BACPAQ, injury is not seen as a determinant of abuse.

While all physically aggressive behaviours had to occur only *once* to be considered abusive, the frequency thresholds for non-physical abuse varied significantly. Non-physically abusive behaviours ranged from subtle behaviours that

had to occur daily to engender a sense of fear and control (e.g., yelling at a parent) to severe acts of relational aggression that were considered abusive regardless of frequency (e.g., attempting to intimidate a parent). These results highlight the complexity of measure non-physical abuse as there are substantial differences in the nature of these behaviours that has not been accounted for in previous approaches to CPA measurement.

The preamble to Chapter 4 highlighted that the scoring procedures used by the CPAQ and Conflict Tactics Scale (Straus, 1979) can overstate the severity of participants' behaviour, as normative aggression is conflated with abuse, while rare, but severe behaviours, receive lower scores. In contrast, scoring procedures that have attempted to consider variation in severity of behaviour by including some sort of cut-off often underestimate severe forms of non-physical abuse. For example, the CPAQ's threshold for the presence of *Severe Aggression* varies depending on whether the behaviour was physical (i.e., more than three times) or non-physical (i.e., more than six times). However, while some non-physical behaviours (e.g., swearing at a parent) may have to occur often to be considered abusive, other behaviours (e.g., attempted to intimidate) are severe enough that they only must occur once to, similar to physical aggression. Applying the same threshold to all non-physical forms of aggression does not reflect the complexity of that construct. The ABC-I presents a new way to quantitatively summarise the severity of these complex behaviours by standardising the threshold for abuse according to social norms.

The use of the BACPAQ to inform the development of the ABC-I, significantly advances the measurement of CPA by creating a culturally-relevant, empirically-derived clinical threshold to distinguish socially normative from abusive patterns physical and non-physical behaviours by youth towards parents. Within this sample, 68% of participants reported some level of aggression against parents. These

results are consistent with the broader CPA literature that finds some aggressive behaviour is normative within the child-parent relationship (e.g., Jaureguizar, Ibabe, & Straus, 2013; Pagani et al., 2009). However, in comparison to the CPAQ, which is the most commonly used CPA measure, the ABC-I had a higher threshold for labelling young people's behaviour as abusive. For instance, 41% of the sample was categorised as abusive by the CPAQ, while only 16% of the sample was considered to be abusive on the ABC-I. While it is still unclear what the true prevalence of abuse within the Australian community is, there does not appear to be enough public concern regarding the issue of CPA to suggest that 41% of the population abuses their parents. Therefore, these results provide preliminary evidence that the ABC-I may be better able to differentiate abusive from normative behaviour. However, further research involving collateral information or parents' reports is required before more definitive conclusions can be drawn.

6.2.1.1 The cultural context of child-to-parent abuse.

A key aspect of improving the measurement of CPA is to be sensitive to potential cultural differences in this somewhat nebulous construct. While there has not been any research to date investigating cultural differences in the definitions of CPA, literature from elder abuse (Moon & Benton, 2000) and child abuse (The International Society for the Prevention of Child Abuse and Neglect (IPSCAN), 2014; Levinson, Graves, & Holcombe, 1984) suggest that definitions may well vary according to culture. This is likely because culture influences social norms regarding relationships (Lalonde, Hynie, Pannu, & Tatla, 2004; Li, Delvecchio, Miconi, Salcuni, & Di Riso, 2014), aggression (Cohen, Vandello, Puente, & Rantilla, 1999), and the interaction between the two (Dietrich & Schuett, 2013). The BACPAQ and ABC-I offer a way of measuring cultural differences in both perceptions of CPA, and the nature of the behaviour in a given society. The ABC-I's thresholds and scoring procedures are

culturally-relevant. As such, it is important that the results of the present studies not be generalised outside the context in which they were collected, but instead be used to begin a conversation about the similarities and differences in the definition and nature of abuse in various cultures.

Within the last century there has been a shift in parenting in Western society. Strict hierarchical familial structures in which children were to be seen but not heard and harsh authoritarian parenting has reduced in favour of parenting styles evidencing greater parental warmth and consultation with the child (Doepke & Zilibotti, 2017). While this affects parenting practices, it also affects how children are viewed within the child-parent relationship. There appears to be a presumption that children are innocent and the responsibility for their behaviour is somehow shared with their parents (Gallagher, 2004; Walsh & Krienert, 2009). This not only affects what behaviours are perceived to be abusive, but how young people's abusive behaviour is dealt with.

Although definitions of abuse may vary according to culture, the extent to which they vary should not be without scrutiny. For example, if a study suggested that 80% of parents believed that physical assault against a parent was only abusive if it occurred daily (as opposed to once, which it was in the current Australian sample), this would reflect beliefs and norms within a society that were more accepting of aggression or abuse, potentially in a problematic way that could result in harm to those within that society. To understand both what is considered to be abusive by a particular culture, and the nature of their norms around abuse, the thresholds identified for abuse within a given culture should also be interpreted in the context of broader norms regarding abuse, such as those laid out in internationally recognised definitions (e.g., general abuse definitions provided by the World Health Organisation).

6.2.1.2 Abuse within different family relationships.

A second key aspect of improving measurement of CPA is to begin to investigate the similarities and differences between this and other forms of abuse. While aggressive behaviours may appear similar across relationships, child-parent relationships differ from other familial relationships in terms of power dynamics, social expectations, norms, responsibilities, and emotional attachments, which may influence what is perceived as abusive (see Fitzpatrick & Vangelisti, 1995). Indeed, Chapter 3 described two behaviours that were drawn from the intimate partner abuse (IPA) literature that were not perceived by parents as abusive within the child-parent relationship (i.e., *Became upset because chores were not done how or when he/she wanted them to be done* [Hegarty, Sheehan, & Schonfeld, 1999; Tolman, 1989] and *Blamed parent for child's own behaviour* [Hegarty et al., 1999]). It is possible that these behaviours are perceived as less of an abuse of power within the child-parent relationship because of the different role expectations and power dynamics in comparison to intimate partner relationships.

Within relationships where there is an ideal of power parity (i.e., intimate partners), becoming upset because chores are not done to one's standards may reflect a power dynamic in which one partner needs to satisfy or seek approval from the critical partner, which is a departure from the ideal. However, given that parents inherently have greater responsibility to their children than children have to their parents, a similar criticism may carry less weight or have less influence on the power dynamic. Similarly, as parents in Western society are expected to support children as they learn emotional and behavioural regulation skills (Skinner & Zimmer-Gembeck, 2016), parents may perceive that they do in fact bear some responsibility for their child's behaviour. This is contrary to the expectation in an intimate relationship between two adults. Indeed, qualitative research described that parents experience blame, either from themselves or others, because there is an assumption that they are

responsible for their child's behaviour (Brule & Eckstein, 2004; Cottrell, 2001; Hunter, Nixon, & Parr, 2010). Together, these two behaviours provide an example of the complexities of defining and measuring abuse, and how definitions can vary according to the relationship roles, social norms, and power dynamics. As such, it is essential that measures of abuse do not simply rely on face validity or generalise results to other relationships or cultures, as these are important factors in determining abuse.

Although two behaviours that were derived from IPA measures were not considered to be abusive by parents, the BACPAQ helps to expand the scope of behaviours that have the potential to be abusive. Parents' responses in Chapter 3 confirmed that behaviours drawn from IPA literature that had not previously been studied in the field of CPA could be abusive when used by a young person against a parent. Two such behaviours, *Kept parent from medical care* (Hegarty, Sheehan, & Schonfeld, 1999; Shepard & Campbell, 1992) and *Forcibly confined parent* (Shepard & Campbell, 1992), which were later combined into *Kept parent from seeking help or medical care*, had not previously been studied in CPA research, yet are present in the final ABC-I. Further, other items such as, *Threatened to turn friends and family against parent* (Tolman, 1989) and *Made parent do something humiliating* (Shepard & Campbell, 1992), were also perceived by parents as potentially abusive if they occurred a few times within a year, despite not previously being mentioned in quantitative CPA research. As psychological abuse has only been investigated within CPA literature within the past twenty years, there is opportunity to draw from IPA literature to broaden our understanding of psychological CPA, although cautiously and with appropriate testing.

6.2.1.3 Summary.

The development of the BACPAQ and the ABC-I has improved the measurement of CPA by focusing on *abuse* rather than aggressive behaviour. As abuse is a socially defined construct that will likely vary depending on the culture and relationship in which it is measured, the BACPAQ was used to develop a scoring protocol that reflected Australian social norms of CPA. The BACPAQ expanded the repertoire of potentially abusive behaviours by young people towards their parents, while highlighting that not all behaviours that are abusive in intimate partner relationships are abusive within child-parent relationships. The ABC-I uses thresholds set by the BACPAQ to provide a culturally-relevant cut-off differentiating aggressive and abusive behaviour within the child-parent relationship.

6.2.2 Research Aim 2: Understanding individual and familial factors related to CPA.

Chapters 4 and 5 included descriptions of demographic factors (i.e., sex and age) related to CPA in adolescents and young adults. Both studies suggested that males were significantly more likely than females to be categorised as abusive (i.e., score greater than 16 on the ABC-I), with sons being specifically more likely to target fathers. This is contrary to previous CPA research that suggests that males and females in the community perpetrate CPA at similar rates (Agnew & Huguley, 1989; Browne & Hamilton, 1998; Calvete et al., 2015a; Elliott et al., 2011; Ibabe & Bentler, 2016; Jaureguizar et al., 2013; McCloskey & Lichter, 2003; Pagani et al., 2009; Ulman & Straus, 2003). However, this may be attributable to two factors: (a) differences in measurement; (b) differences in sample age.

In order to be categorised as abusive on the ABC-I, participants must have either acted physically aggressively towards a parent or demonstrated a pattern of verbal aggression and/or coercive behaviour. This is a higher threshold for abuse than many previous studies of CPA that have examined both physical and non-physical

behaviours (e.g., Margolin & Baucom, 2014; Pagani et al., 2004). Previous research suggests that females are more likely than males to self-report minor acts of aggression in CPA (Agnew & Huguley, 1989; Calvete et al., 2013) and intimate partner abuse research (Archer, 2000; Cantos, Neidig, & O'Leary, 1994). As such, the gender difference observed when using the ABC-I, may suggest that the ABC-I is effective at reducing the likelihood of conflating minor acts of aggression with abuse.

The age of participants in the studies reported in Chapters 4 and 5 may also explain the observed gender difference in perpetration. In comparison to previous research, which has typically involved participants under the age of 18 years (see Chapter 2), the samples within this thesis are considerably older, with a mean age of 20 years. Research suggests that as females become young adults, they tend to desist from CPA (Snyder & McCurley, 2008), while males may become more aggressive towards fathers during this time (Peek, Fischer, & Kidwell, 1985; Snyder & McCurley, 2008), thus affecting the gender distribution in perpetration.

Chapters 4 and 5 examined slightly different age groups (14-25 years and 18-25 years, respectively). While the chapters were not directly compared, males in Chapter 4 evidenced slightly less abuse towards fathers (17%) than in Chapter 5 (20%), whereas females from the younger sample evidenced slightly more abuse towards their mothers (13%) compared to the older sample (11%). Although these results cannot be used to confirm the hypothesis that age affects the gender distribution in perpetration, they mirror the literature that suggests that females desist from CPA before males (Snyder & McCurley, 2008) and that males may be more likely to target fathers as they age (Peek et al., 1985). These results further highlight the need to conduct research involving both adolescents and young adults, preferably using longitudinal designs, to test this hypothesis.

6.2.2.1 Modelling risk factors for abuse.

Chapter 5 drew upon two prominent theories to investigate individual and familial factors associated with CPA towards mothers and fathers. The models accounted for a greater proportion of variance in aggression and abuse towards fathers than mothers. Both models supported the results of previous research, with strong relationships identified between scores on the ABC-I and trait anger (Calvete, Gamez-Guadix, & Garcia-Salvador, 2015a; Norlander & Eckhardt, 2005; Novaco, 2007) as well as exposure to family violence (Anderson & Bushman, 2002; Brezina, 1999; Margolin & Beaucom, 2014). However, parents' gender appeared to influence whether direct victimisation or exposure to marital aggression had a greater effect on the pattern of CPA.

The model explaining aggression and abuse towards fathers fit within well-established social-cognitive theories of aggression (e.g., Anderson & Bushman, 2002; Finkel et al., 2012), highlighting roles of both aggressive cognitions (aggression scripts) and inhibitory control deficits (rumination, trait anger) in CPA perpetration. The model highlighted that victimisation by father was a significant contributor to abusive behaviour towards fathers. Additionally, participants who were exposed to marital aggression had an increased risk of aggressive behaviour if they had an angry temperament (Anderson & Bushman, 2002; Calvete et al., 2015a) and reported more frequent aggressive script rehearsal (Calvete et al., 2015a; Gilbert, Daffern, Talveski, & Ogloff, 2013; Musher-Eizenman et al., 2004). Finally, a propensity to ruminate, which was hypothesised to deplete self-control (Ammerman, Kleiman, Uyeji, Knoff, & McCloskey, 2015; Denson, Pedersen, Friese, Hahm, & Roberts, 2011; Donahue, Goranson, McClure, & Van Male, 2014), was also related to CPA perpetration.

Of note, the measurement of aggressive scripts within this exploratory research relied on a single question regarding how often participants had thoughts about hurting other people. This narrow definition of aggressive scripts only captures the frequency,

rather than the duration (e.g., fleeting thought or enduring fantasy), content (e.g., scripts about insulting someone or homicidal ideation), focus of- (e.g., parent, other individual), or identification with the script (e.g., was the script ego-syntonic or ego-dystonic). Variations in these additional factors may result in different behavioural outcomes (see Huesman & Eron, 1989). However, while aggressive scripts are theoretically described as important factors to understanding aggression, they remain largely understudied even in general aggression research (see Gilbert & Daffern, 2017). As such there are few measures of scripts and limited empirical data for CPA research to draw upon in order to generate hypotheses. However, these findings suggest some value in pursuing such research in relation to CPA.

When explaining aggression and abuse towards mothers, aggression-supportive cognition (i.e., aggressive scripts) and individual factors that suggest poor inhibitory control (i.e., rumination, emotional dysregulation, impulsivity) did not account for unique variance in the model. This may be because aggression in the child-mother relationship differs from general aggressive behaviour or aggressive behaviour towards fathers. It is possible, for instance, that the unique emotional attachment that young people have with mothers acts as a strong inhibiting factor, or that cultural norms against violence to women inhibit violence towards mothers, particularly for sons. While Chapter 5 discussed these models individually, this integrated discussion will consider why there was such disparity between the models for mothers and fathers, drawing upon both aggression and attachment literatures.

Despite recent advances in equality of household duties, mothers remain the primary caregiver in Western societies as measured by mothers' view of parenting roles (Bianci, Robinson, & Milkie, 2006), adolescents' view of parents (Richarson, Galambos, Schulenberg, & Petersen, 1984), and time spent with children (Dubas and Gerris 2002; Kotila, Schoppe-Sullivan, & Kamp-Dush, 2013). Research suggests that

mothers are not only children's primary attachment figure but that the quality of the attachment is stronger between children and their mothers compared to their fathers (Doyle, Lawford, & Markiewicz, 2009; Paterson, Field, & Pryor, 1994). The significance of the child-mother relationship continues as children become adults. In a study of 682 participants ranging in age from 12 to 28 years, young adults (i.e., 20-28 years) were more likely to identify their mothers over fathers, friends, and intimate partners, as their secure base who met their primary attachment needs, regardless of whether the participant was in a relationship (Markiewicz, Lawford, Doyle, & Haggart, 2006). The emotional attachment that young adults had with their fathers resembled that of a peer or intimate partner, which may make factors related to general aggression more easily generalisable.

Interestingly, trait anger was the only dynamic individual factor (i.e., not a static factor such as age) in the model that was related to aggressive or abusive behaviour towards mothers. Research suggests that anger can increase aggressive behaviour through several possible routes, including moral disengagement and impaired decision making (Anderson & Bushman, 2002), as well as affecting perspective taking (Mohr, Howells, Gerace, Day, & Wharton, 2007). It may be that most individuals are driven to maintain their relationships with their mother, but anger interferes with the decision-making process through either justification for the use of aggression or by impairing the retrieval of non-aggressive problem-solving strategies (Anderson & Bushman, 2002; Birkley & Eckhardt, 2015). Further, as the other dynamic individual factors did not improve our understanding of aggression and abuse within the child-mother relationship, it may be that mother abuse reflects a problematic interpersonal or attachment style, as the drive to maintain this fundamental relationship would likely inhibit most individuals from acting abusively.

It is possible that attachment may be a key factor in understanding why some young people escalate beyond normative aggression and abuse their mothers. Attachment has not been well examined in CPA research to date, with only two studies finding a relationship between insecure attachment and CPA (Agnew & Huguley, 1989; Peek et al., 1985), although both studies collapsed mothers and fathers into a single category. The limited focus on attachment, or the child-parent relationship more broadly, is concerning given that it is the context in which the abuse invariably occurs. Baldwin, Keelen, Fehr, Enns, and Koh-Rangarajoo (1996) proposed a social-cognitive attachment theory, suggesting that differences in attachment style reflect differences in relational schemas and scripts. This social-cognitive operationalisation of attachment may be a useful framework for future CPA research. Child-parent relational schemas and scripts may provide insight into typical child-parent interactions, as well as the perceived utility or appropriateness of aggression in the relationship. Therefore, this framework would allow for integration of aspects of both the attachment and aggression literatures.

Although a young person's close relationship to the mother may inhibit abuse, it may also promote low level aggression by adolescents and young adults, regardless of individual factors that are typically related to aggression. Research suggests that adolescent conflict (*not* abuse) is greater in relationships with mothers relative to both fathers and peers (Ashraf & Najam, 2011; Laursen, 1995, McGue, Elkins, Walden, & Iacono, 2005). Theorists hypothesise that the high level of adolescent-mother conflict may be because mothers are more involved with their children compared to fathers (Ackerman, 1980; Shanahan, McHale, Osgood, & Crouter, 2007).

Indeed, Chapter 4 found that youth were more likely to be aggressive towards their mothers (64%) than their fathers (50%), although mothers and fathers were abused at similar rates. This is consistent with past research that finds mothers were

targeted at greater rates than fathers when aggression and abuse were not differentiated (Agnew & Huguley, 1989; Contreras & Cano, 2014; Ibabe & Jaureguizar, 2010; Ulman & Straus, 2003). However, when severity of the behaviour was taken into consideration, mothers and fathers were equally likely to be targets of severe aggression (Calvete et al., 2013) or fathers were at greater risk (Browne & Hamilton, 1998). It may be that stronger attachments between young people and their mothers may increase the difficulty of predicting mother-directed CPA, as low-level aggression is pervasive in this relationship; reducing the role of other factors related to aggressive behaviour.

While Chapter 5 investigated hypothesised factors related to CPA, attitudes towards violence were not able to be modelled due to the assumptions of PLS-SEM. However, violence-supportive attitudes were not significantly related to CPA at the univariate level, contrary to previous CPA research (Contreras & Cano, 2016). IPA research suggests that in addition to beliefs about general violence (Herrero, Torres, Rodriguez, & Juarros-Basterretxea, 2017), individuals are more likely to commit IPA if they have attitudes supportive of intimate partner abuse (Capaldi, Knoble, Shortt, & Kim, 2012; Eckhardt, Samper, Suhr, & Holtzworth-Munroe, 2012; Kantor, Jasinski, and Aldarondo, 1994), sexist attitudes (Herrero et al., 2017), or attitudes suggesting that men should be dominate in relationships (Ahrens, Rios-Mandel, Isas, & Lopez, 2010). However, there is no known research investigating what attitudes might implicitly or explicitly support CPA.

The role of attitudes in CPA perpetration is likely to be highly complex. While the investigation of IPA-supportive attitudes often takes a heteronormative perspective, (i.e., male-to-female and female-to-male violence; e.g., Robertson & Murachver, 2009), CPA has to consider the interaction between and within male and female dyads, as well as cultural norms regarding the importance of family and respect

for elders. One potential avenue for future research may be exploring the relevance of attitudes around honour for male perpetrated CPA. Men from cultures that perceive honour as very important (e.g., southern United States, Mediterranean) have been shown to be more likely to perceive violence as justifiable in response to insult or threat (van Osch, Breugelmans, Zeelenberg, & Boluk, 2013). Research suggests that maintaining one's honour may provide justifications for abuse if a male partner feels that the female partner or family member is not respecting his honour (Cohen & Nisbett, 1994; Dietrich & Schuett, 2013; Henry, 2009). Further, honour culture attitudes may also help to explain the increase in son-to-father abuse in young adulthood if sons perceive that their fathers are not respecting or recognising their status as an adult. While CPA is not limited to honour cultures (see Chapter 2 for discussion of culture), exploring these concepts may help to understand how males in particular might justify overriding familial hierarchies and social norms against violence towards women.

While honour may be a helpful perspective to explore in understanding how males justify aggressive behaviour against their parents, female perpetrators may need fewer impelling factors to disinhibit their behaviour and act aggressively. When investigating attitudes towards IPA perpetrated by males and females, Robertson and Murachver (2009) found that female-perpetrated IPA was perceived as less criminal and more acceptable than male-perpetrated IPA. This was to such an extent that males were more likely to laugh when asked about female IPA than vice versa. It may be that minimisation of female aggression may indirectly support female-perpetrated CPA by enabling perpetrators to minimise their own behaviour and view it as trivial.

6.2.2.2 Summary.

This thesis contributed significantly to understanding individual and familial factors related to CPA. Chapter 5 included the first study to investigate risk factors for

more severe patterns of CPA, rather than for more frequent acts of aggressive behaviour. The findings suggest that when the severity of behaviour is considered, males are more likely than females to be categorised as abusive. This contradicts research examining community prevalence rates that neglect to consider the severity of behaviour (see Chapter 2). Further, these results highlighted that exposure to family violence and trait anger are risk factors for more severe patterns of CPA, regardless of the victim's gender. Although these factors have been investigated in previous research (Calvete et al., 2013a; Hendy, Burns, Can, & Sherer, 2011; Kethineni, 2004; Stewart, Wilkes, Jackson, & Mannix, 2006), these results provide further information regarding the complex mechanisms of effect that link family violence, trait anger, and CPA.

This thesis adopted a social-cognitive perspective to help build interconnections between CPA and leading theoretical frameworks of aggressive behaviour (i.e., GAM and I³). While the model for aggressive and abusive behaviour towards fathers closely reflected general aggression theories (Anderson & Bushman, 2002; Finkel et al., 2012), few variables accounted for independent variance in the prediction of aggressive and abusive behaviour towards mother. This suggests that individual differences relevant to aggression in a range of different contexts may be less important to mother directed CPA, and relationship characteristics may be more important. This thesis has simultaneously emphasised that future research must build interconnections between CPA and other forms of aggression while highlighting the need to consider the unique relationship in which CPA occurs. Baldwin and colleagues' (1996) relational schemas perspective may provide a useful framework for future research to integrate the aggression literature with relationship or attachment literatures in an effort to better understand CPA perpetration.

6.3 Critique of Methodology

6.3.1 Sample.

The sample used in Chapters 3 and 4 relied on convenience sampling from university, social media, and a community mental health website, while Chapter 5 drew only from a university sample. This procedure is subject to self-selecting bias, as participants who are uninterested in the topic may be less likely to participate. This may have particularly affected the parents' sample as 38% of the sample described their child's behaviour as abusive. This proportion likely reflects self-selection bias rather than the true prevalence of CPA, as it is likely that CPA would be a more widely acknowledged phenomenon if almost half of parents were being abused by their children. The over-representation of abuse actually proved to be beneficial for this research, as detecting a rare phenomenon in a sample of 201 participants would have been difficult. However, further research is needed to ensure that this sample's experiences and perceptions reflect that of the general community.

Despite actively attempting to target males during recruitment, both the youth and parent samples were biased towards females, who accounted for approximately three quarters of the participants. As there were few fathers recruited, this limits our understanding of whether fathers' perceptions of abuse vary from mothers' perceptions. Further investigation is also needed to understand whether fathers and mothers report similar frequency thresholds of abuse. Both Chapter 4 ($N = 587$) and Chapter 5 ($N = 435$) employed large sample of young people, with more than 100 males included in each study. This allowed for conclusions to be drawn about male participants and sex difference related in CPA perpetration. Therefore, while the young people samples were biased towards females, the studies still provide some meaningful results about sons who perpetrate CPA.

Future research may wish increase participation of fathers by recruiting father-child dyads, rather than advertising the research to fathers, who are generally difficult

to recruit for family based research (Phares, Fields, Kamboukos, & Lopez, 2005). In order to recruit more male youth participants, future research may benefit from targeting sports clubs or university disciplines that are not traditionally female dominated (e.g., science or engineering) rather than psychology. Alternatively, research may limit the recruitment of females in an effort to recruit a more gender balanced sample.

6.3.2 Study design.

This thesis details three cross-sectional studies which employed online self-report measures. This methodology limits the ability to assume causality and it may be subject to cognitive biases such as impression management, recall bias, or self-serving bias that were not assessed. The research relied on participant self-report, and so is limited according to participants' willingness to disclose sensitive information, accurately recall events, and provide insight into their emotional, cognitive, and behavioural processes. While there is no information to corroborate the veracity of participants' responses, past research that has compared reports by parents and children found that daughters' self-reports tended to be similar to parents' reports, if not overly critical of their own behaviour, whereas boys were more likely to portray their behaviour more favourably than parents (e.g., Calvete, Gamez-Guadix, Bushman, 2015). As the sample is primarily female, self-report bias is less likely to have systematically biased the quality of the research, although it still may have had some impact on results.

This study relies upon the ABC-I to identify abuse. As the ABC-I scores young people's behaviours depending on the severity (a combination of their frequency and nature), these results may not be immediately comparable to past research that has used additive scoring to consider the frequency of verbal, psychological, financial, and physical abuse, without consideration for the overall severity of the pattern of

behaviour. However, while it may limit the potential to draw comparisons, this approach advances the field of CPA.

6.3.3 Statistical analyses.

One of the challenges of examining rare behaviours in community samples is that it often produces non-normal sample distributions. PLS-SEM was used to model the data as this procedure is better able to manage non-parametric data in comparison to covariance-based structural equation model (CB-SEM) which has strict distribution assumptions (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). However, PLS-SEM is not without its limitations. PLS-SEM does not include error terms and so cannot be generalised as easily to other populations. Further, despite sharing the same notation of SEM, the prediction algorithm is not similar to CB-SEM and therefore cannot be interpreted in the same way (Hair, Hult, Ringle, & Sarstedt, 2017). Instead, PLS-SEM is more comparable to multiple regression, which seeks to maximise the variance accounted for in the model, rather than assess whether the data fits a theoretical model (i.e., assess goodness-of-fit; Riou, Guyon, & Falissard, 2016).

6.3.4 The ABC-I.

While the ABC-I addresses some of the limitations of current CPA measurement by providing a culturally-relevant measure of abuse that has an empirically derived cut-off score and considers both the frequency and severity of behaviour, it is not without its limitations. For instance, the development of the ABC-I was based upon 40 questions derived from qualitative and quantitative CPA literature, as well as measures of IPA. While these questions were selected to cover a broad range of behaviours, it was not feasible to include every question used in quantitative literature or behaviour described in qualitative research. Instead, the focus was on ensuring that items represented the breadth of the construct (see Cottrell, 2001; Holt, 2013 for definitions of CPA), as the validity of indices is dependent on ensuring

that all aspects of a construct are represented (Hair et al., 2017). As such, the ABC-I may need to be reviewed and adapted over time if the nature of behaviours that can be used to abuse changes. For instance, in its present form, the ABC-I does not include any questions regarding technology or cyber abuse. While this does not appear to be presently relevant (as judged by an absence of cyber abuse mentioned in qualitative and quantitative research), this may become an issue as technology continues to advance and begins to permeate more aspects of every-day life.

The thresholds for scoring abuse on the ABC-I are derived from social norms in the relevant culture. This is a strength of the research design, but also means that researchers using the ABC-I in other cultures or contexts should administer both the ABC-I and the BACPAQ to create culturally-relevant thresholds that can inform the ABC-I scoring procedure. Further, the scoring protocol is subject to weaknesses in the sampling procedure, as fathers were underrepresented in our sample and this may have affected the set thresholds of abuse that were used to score the ABC-I. Further research with a more representative sample is needed to investigate whether there are sex differences in parents' definitions of abuse.

As the scoring procedure ranges from 0 to 1216, research using the ABC-I is limited in terms of what statistical analyses are able to be conducted due to high levels of skewness and kurtosis in the resulting data. However, researchers who do not wish to use non-parametric procedures such as PLS-SEM to model CPA may instead use the dichotomous (yes/no) categories for abuse, and investigate variables that predict abuse status, rather than severity of behaviour (e.g., binary logistic regression modelling).

Finally, although this thesis developed the ABC-I to improve the measurement of CPA, parents' own definitions of abuse were not investigated. It is not known how parents were defining abusive behaviour when selecting frequency thresholds, or

when describing whether their own child's behaviour was abusive. As such, while this thesis contributes to better operationalisation of the abuse construct, it does not further our understanding of what abuse theoretically means or what characteristics of behaviours and relationships people rely on to define the presence of abuse.

6.3.5 Summary of limitations

While this thesis is limited by a female-dominated convenience sample and a reliance of self-report measures, this research adopted a novel approach to the measurement of CPA to represent the complexities of abuse in a quantitative manner. However, by doing so, the findings regarding the proportions, demographics, and risk factors related to CPA perpetration may not be generalisable to other studies. Nonetheless, this research advances our understanding of patterns of aggressive or abusive behaviour and provides insight into CPA perpetration by young adults, which is an understudied but important group of CPA perpetrators.

6.4 Clinical Implications

The results of this research have implications for service providers in regards to the prevention and intervention of CPA. Specifically, service providers who work with young people who are witnessing or experiencing familial abuse may want to be mindful for signs of the young person is acting aggressively or abusively towards their parents. This may be particularly relevant for young men who are being victimised by their fathers. Father-to-son aggression may be seen as a red flag, signalling service providers to investigate the possibility of whether CPA is occurring, and/or the need to intervene preventatively to help deter future CPA. Even if CPA is occurring within the context of self-defence, it is important that it be addressed so that young people do not develop aggressive behavioural scripts that they carry into future close relationships.

The findings of Chapter 5 provided some insight into potential individual and familial treatment targets that could be the focus of attempts to prevent or intervene in CPA. Regardless of targets' gender, trait anger was a significant factor related to CPA, consistent with previous research on IPA (Birkley & Eckhardt, 2015). As research suggests that cognitive or relaxation based anger management treatment programs have medium to large effect sizes in anger reduction (Del Vecchio & O'Leary, 2004), these programs may offer utility in reducing CPA perpetration. In addition to anger, violent scripts and rumination appear to be risk factors for father-directed CPA. While there is a paucity of intervention strategies specifically focusing on scripts, individuals may benefit from interventions that provide them with the opportunity to practice new conflict management strategies. In regards to rumination, mindfulness and cognitive behavioural therapies have shown positive change in reducing ruminative thinking (Peters et al., 2015; Watkins, 2016).

Some jurisdictions now have CPA specific intervention programs. One such program, Step-Up, which originated in the United States, is considered best practice in CPA intervention (Howard & Abbott, 2013). This group program provides support for both parents and adolescents to address the young person's conflict tactics, behavioural and emotional awareness, and anger management (Routt & Anderson, 2011). These factors broadly reflect the results of Chapter 5, as trait anger was the most consistent variable predicting CPA and rumination (i.e., an ineffective emotional regulation strategy) were related to CPA. Further, despite not being significant in the models, the high levels of emotional dysregulation in our sample suggests that perpetrators may benefit from learning more emotional regulation strategies. Indeed, evaluation of the Step-Up program suggests it has a positive effect on the reduction of CPA (Howard, 2011), however it has not been subject to the scrutiny of a randomised

control trial. Therefore, future research should conduct a more stringent evaluation of the Step-Up program.

Intervening in CPA may be useful as an early-intervention tactic for reducing IPA. Although the limited research examining whether CPA and IPA are related has provided mixed results (Darling, Cohen, Burns, & Thompson, 2008; Hendy et al., 2011), the findings in Chapter 8 highlight that some of the cognitions and emotional factors that predict IPA, also predict CPA (Clements & Holtzworth-Munroe, 2008; Finkel et al., 2012). Intervention programs that target aggressive cognitions, problems with emotional regulation and anger management, as well as develop appropriate conflict strategies may be effective in reducing young people's risk of perpetrating abuse, whether it is in their relationship with their parents or with a partner.

Using the ABC-I has significant clinical utility. It may be useful for practitioners working with parents and young people to help them identify when a pattern of behaviour has crossed the threshold from normative and has become abusive, requiring perhaps a different level of response and greater attention to the parents' mental health and wellbeing. This may be particularly necessary within the field of CPA, as qualitative research suggests that parents initially struggle to recognise a pattern of behaviour as abusive (Cottrell, 2001). Therefore, the ABC-I may provide an externally derived measure that can be used to start discussions with parents about their child's behaviour.

6.5 Future Directions

The ABC-I provides considerable opportunity for future research examining individuals who are categorised as abusive. Future research should investigate whether the ABC-I can be generalised to other populations, as well as investigate its utility in samples of young people drawn from clinical or forensic populations. At present there

are no other tools that can provide an empirically-derived threshold for differentiating normative from abusive behaviour.

Chapter 2 highlighted the need to draw interconnections between different forms of violence that may share similar risk factors (Hamby and Grych, 2013) and outlined 32 research questions regarding individual, interpersonal, social, and cultural factors, in the hope of guiding future research to address the gaps in the CPA literature. A noticeable deficit in CPA research to date is the lack of focus on the child-parent relationship in predicting abuse. Indeed, Chapter 2 highlighted that the majority of research pertains to individual factors or exposure to family violence. The current study also focussed on individual factors, finding that while they were useful for predicting father-directed CPA, they were less relevant for predicting CPA towards mothers. It was hypothesised that these results may be because of differences at the interpersonal or relationship level, such as differences in relationship schemas or scripts. Future CPA research would be remiss to continue to focus solely on individual factors, neglecting to investigate relational cognition and interpersonal factors that may be related to abuse. To begin this work, researchers could draw on the IPA literature, such as that of Slep and O’Leary (2007), who included various relationship and interpersonal characteristics in their modelling of IPA.

Expanding on the results of Chapter 3, future research should also examine social norms surrounding CPA in different cultures, as well as exploring how these norms may vary according to the gender and age of the perpetrator and target of abuse. Understanding social norms regarding the age at which behaviour has the potential to become abusive is a question with important legal and clinical implications. Further, such research could inform the elder abuse literature and identify similarities and differences between CPA by adult children of older parents and elder abuse.

In addition to exploring social norms regarding how often behaviours have to occur to be considered abusive, the field would benefit from a better understanding of behavioural scripts, attributions, and attitudes surrounding CPA more generally. Considering the relatively high rates of aggression found in our study (i.e., 68% in Chapter 4) and other research (e.g., Jaureguizar et al., 2013; Pagani et al., 2009), there may be behavioural scripts or beliefs about the acceptability of low level aggression in the child-parent relationship that have yet to be empirically investigated. Understanding behavioural scripts relevant to child-parent relationships, in addition to elaborating on social norms and beliefs about the child-parent relationship may assist with applying general aggression research to CPA in a more nuanced and relevant manner.

Although rumination was also significant in the model predicting father-directed CPA, more information is needed to understand how this cognitive process relates to aggression. For instance, while a general propensity to ruminate was identified as a risk factor, it is possible that domain-specific rumination (e.g., angry rumination) could play a stronger role as research suggests that angry rumination is related to general aggression (Denson, Pedersen, Friese, Hahm, & Roberts, 2011). It is also possible that rumination on other topics (e.g., parental rejection) may also be relevant to CPA. Further, while we hypothesised that CPA and rumination were related due to depleted self-regulation, more research is needed to confirm the mechanism of effect as the relationship between negative urgency and CPA was not significant, suggesting that rumination did not deplete participants' behavioural regulation enough to result in impulsive aggressive behaviour.

Chapter 5 is one of the few studies to consider CPA within a young adult population. Greater focus should be paid to this age group, as investigating young adult CPA perpetrators may have important implications for understanding and

preventing parricide (i.e., killing one's parent). Research suggests that males are significantly more likely than females to kill their parents and that the peak age of parricide perpetration is 18-21 years old (Walsh & Krienert, 2008). This is concerning as CPA research speculates that son-to-father abuse may become more common within this age group (Chapter 4; Peek et al., 1985; Walsh & Krienert, 2009). However, as the majority of CPA research stops before the age of 18 years old (see Chapter 2) the group may potentially pose the greatest risk of homicide is largely ignored by the literature. Future research may explore the number of parricide perpetrators that display abusive patterns of behaviour before the murder, to determine to extent to which these groups overlap. Notably, CPA could not be used to predict parricide as it is too rare of a phenomenon (Walsh & Krienert, 2009), however, CPA may be useful for preventing parricide.

6.6 Conclusions

After decades of incidental, exploratory research, the field of CPA is finally becoming the subject of concerted attention by researchers. This thesis has contributed to the field of CPA research by developing a novel measure of abuse (Research aim 1) and investigating individual and familial factors related to CPA (Research aim 2). The Abusive Behaviour by Children-Indices were developed in an effort to create a culturally-relevant, empirically derived clinical cut-off for abuse that takes into account both the severity and pattern of behaviour. In addition to having potential applications in clinical practice, the ABC-I provides the opportunity to conduct research using a measure that is both sensitive to abuse, while demonstrating specificity in ruling out non- abusive patterns of behaviour.

Using the ABC-I, Chapter 5 investigated factors related to CPA and identified gender-sensitive social cognitive models of aggressive and abusive behaviour towards mothers and fathers. While the model for father-directed CPA conformed to

hypotheses guided by theories of general aggression and IPA, few variables accounted for unique variance within the model for mothers. The results of this research improve our understanding of the social cognitive factors related to CPA, while raising new avenues for future research (e.g., attachment and relationship schemas, social norms, and the role of specific cognitive factors such as rumination) and underscoring the importance of considering more than just individual factors. Only with further research into both individual differences and how these differences are expressed within relationships and in different situations can we develop a comprehensive understanding of why CPA occurs and how it can be stopped.

In addition to meeting the two research aims, this thesis provided novel information regarding social norms about CPA within Australian society. These results highlighted the complexities of quantifying abuse, as behaviours vary substantially in terms of severity. Further, behaviours that are perceived to be abusive in other relationships (e.g., intimate partner relationships) are not necessarily abusive in child-parent relationships (e.g., become angry when housework was not done how he/she wanted).

The other significant contribution of this thesis is the comprehensive review of the literature provided in Chapter 2, which synthesised the past 60 years of research to identify the gaps. By amalgamating a diffuse body of literature and interpreting the findings within the context of the sampling procedures, this review brings clarity to the field of CPA and presents a starting point for the next phase of CPA research investigating causal hypotheses. The review in Chapter 2 provided 32 research questions, four of which were addressed in this thesis. These questions require further attention if our understanding of this apparently common behaviour is to improve.

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Appendices

Appendix A

Submission Evidence

Chapter 2

Melanie Simmons

From: Vincent Van Hasselt (Aggression and Violent Behavior)
<EvisSupport@elsevier.com>
Sent: Wednesday, 27 September 2017 12:58 AM
To: Melanie Simmons
Subject: Invitation to revise manuscript AVB_2017_87_R1

Ref: AVB_2017_87_R1
Title: Sixty Years of Child-to-Parent Abuse Research: What We Know and Where to Go
Journal: Aggression and Violent Behavior: A Review Journal

Dear Ms. Simmons,

Thank you for submitting your manuscript to Aggression and Violent Behavior: A Review Journal. We have completed the review of your manuscript. A summary is appended below. While revising the paper please consider the reviewers' comments carefully. We look forward to receiving your detailed response and your revised manuscript.

To submit your revised manuscript:

- Log into EVISE® at:
http://www.evise.com/evise/faces/pages/navigation/NavController.jsp?JRNL_ACR=AVB
- Locate your manuscript under the header 'My Submissions that need Revisions' on your 'My Author Tasks' view
- Click on 'Agree to Revise'
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- [Interactive Plots](#): Interactive plot viewer providing easy access to the data behind plots. Please prepare a [.CSV](#) file with your plot data and test it online [here](#) before submitting as supplementary material.

I look forward to receiving your revised manuscript as soon as possible.

Kind regards,

Vincent Van Hasselt, Ph.D.
Editor-in-Chief
Aggression and Violent Behavior: A Review Journal

Comments from the editors and reviewers:

The manuscript reads very well, and I am satisfied with the manner in which the authors have addressed my comments. There were a number of grammatical errors throughout so I would ask the authors to give the manuscript a thorough review. The Appendix was helpful, but please provide a label for the categories that begin gender, age, ... school. Are these variables that were assessed by the study? If so, provide greater information in the notes section (e.g., what does school refer to? what does substance use refer to?, etc.).

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Chapter 3

Melanie Simmons

From: em.jofv.0.57165b.13c2846d@editorialmanager.com on behalf of Journal of Family Violence <em@editorialmanager.com>
Sent: Wednesday, 8 November 2017 12:05 PM
To: Melanie Simmons
Subject: JOFV-D-17-00192 - Acknowledgement of Receipt

Dear Ms Simmons:

Thank you for submitting your manuscript, "Defining the frequency at which problematic child-to-parent behaviours become abusive", to Journal of Family Violence.

The submission id is: JOFV-D-17-00192
Please refer to this number in any future correspondence.

<http://jofv.edmgr.com/>

Your username is: msimmons
If you forgot your password, you can click the 'Send Login Details' link on the EM Login page.

With kind regards,

The Editorial Office
Journal of Family Violence

Now that your article will undergo the editorial and peer review process, it is the right time to think about publishing your article as open access. With open access your article will become freely available to anyone worldwide and you will easily comply with open access mandates. Springer's open access offering for this journal is called Open Choice (find more information on www.springer.com/openchoice). Once your article is accepted, you will be offered the option to publish through open access. So you might want to talk to your institution and funder now to see how payment could be organized; for an overview of available open access funding please go to www.springer.com/oafunding.

Although for now you don't have to do anything, we would like to let you know about your upcoming options.

Chapter 4

11/8/2017

ScholarOne Manuscripts



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Submission Confirmation

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Thank you for your submission

Submitted to

Journal of Interpersonal Violence

Manuscript ID

JIV-17-762

Title

Creating the Abusive Behaviour by Children Indices to Differentiate Normative and Abusive Behaviour

Authors

Simmons, Melanie

McEwan, Troy

Purcell, Rosemary

Huynh, Minh

Date Submitted

07-Nov-2017

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1/2

Melanie Simmons

From: em.joyo.0.5716c1.abe4b3ad@editorialmanager.com on behalf of Journal of Youth and Adolescence (JOYO) <em@editorialmanager.com>
Sent: Wednesday, 8 November 2017 1:47 PM
To: Melanie Simmons
Subject: JOYO-D-17-00810 - Submission Confirmation

Dear Simmons,

Thank you for submitting your manuscript, Familial and individual risk factors for young adult children who abuse their parents, to Journal of Youth and Adolescence.

The submission id is: JOYO-D-17-00810
Please refer to this number in any future correspondence.

During the review process, you can keep track of the status of your manuscript by accessing the Editorial Manager Website.

Your username is: msimmons
If you forgot your password, you can click the 'Send Login Details' link on the EM Login page at <http://joyo.edmgr.com/>

Should you require any further assistance please feel free to e-mail the Editorial Office by clicking on "Contact Us" in the menu bar at the top of the screen.

With kind regards,
Springer Journals Editorial Office
Journal of Youth and Adolescence

Now that your article will undergo the editorial and peer review process, it is the right time to think about publishing your article as open access. With open access your article will become freely available to anyone worldwide and you will easily comply with open access mandates. Springer's open access offering for this journal is called Open Choice (find more information on www.springer.com/openchoice). Once your article is accepted, you will be offered the option to publish through open access. So you might want to talk to your institution and funder now to see how payment could be organized; for an overview of available open access funding please go to www.springer.com/oafunding.
Although for now you don't have to do anything, we would like to let you know about your upcoming options.

Appendix B

University Ethics committees' Approval of the Study

SHR Project 2014/277 Ethics Clearance

See below

Melanie Simmons

From: Astrid Nordmann
Sent: Thursday, 12 January 2017 10:52 AM
To: Troy McEwan
Cc: James Ogloff; Rosie Purcell; Melanie Simmons; RES Ethics
Subject: RE: SHR Project 2014/277 - Ethics Clearance for Modifications (3)

Dear Troy

Thank you for your email and I apologise for what appears to have been an administrative oversight on my part with respect to SHR Project 2014/336. The modification request was indeed approved by a SUHREC delegate in October 2016 (at the same time as 2014/277 was approved) but I only sent you the email communication for 2014/277. I note that an extension of ethics approval for 2014/336 was also requested so I will issue a separate email approving that extension shortly.

I therefore also confirm that Melanie can use the data from the 36 cases that she has collected since October 16.

Kind regards,
Astrid

From: Troy McEwan
Sent: Monday, 9 January 2017 9:40 AM
To: Astrid Nordmann <anordmann@swin.edu.au>
Cc: James Ogloff <jogloff@swin.edu.au>; Rosie Purcell <rosie.purcell@orygen.org.au>; Melanie Simmons <msimmons@swin.edu.au>
Subject: RE: SHR Project 2014/277 - Ethics Clearance for Modifications (3)

Dear Astrid,

I'm getting in touch because I've just been notified by Melanie Simmons, my doctoral student, that we may have inadvertently continued to collect data for 2014/336 under the approval below for 2014/277.

We submitted identical applications for modification for the two projects simultaneously in Oct 2016, the applications were attached to the same email from me. Both applications were looking to shorten the survey, extend data collection for another few months and consequently extend ethics clearance until the end of Feb 2017, just in two different samples (one external to Swinburne and one involving Swinburne REP). We received the approval email below from you in mid-October, but did not realise that it was specific to 2014/277 (the external recruitment) and also proceeded to recruit Swinburne students through REP between October and today.

I am hoping that this will be easily solved if the HREC actually cleared 2014/336 but the email was missed given the dual, identical approvals. Could you please check this for me?

If this is not the case, and 2014/336 was not actually approved for amendment by the HREC, we have something of a problem. On a positive note, the overall numbers and data collection period did not exceed the original approval for 2014/336 provided in October 2015; the only difference is that the survey is shorter. So students who completed it between October 2016 and today would have answered identical questions to those prior, simply responded to fewer of them.

I am hoping that there will be some way for Melanie to continue to use the additional 36 cases that she collected between October 16 and today. Could you please let me know how we should proceed from here.

Kind regards,

Troy

Dr Troy McEwan | Senior Lecturer in Clinical and Forensic Psychology
Centre for Forensic Behavioural Science | Swinburne University of Technology and Forensicare

Mail: 505 Hoddle St, Clifton Hill, VIC, Australia 3068

Ph: +61 3 9947 2621

Web: www.swin.edu.au/cfbs



CRICOS Provider 00111D

From: Astrid Nordmann
Sent: Tuesday, October 18, 2016 1:28 PM
To: Troy McEwan <tmcewan@swin.edu.au>
Cc: RES Ethics <resethics@swin.edu.au>; Melanie Simmons <msimmons@swin.edu.au>; James Ogloff <jogloff@swin.edu.au>
Subject: RE: SHR Project 2014/277 - Ethics Clearance for Modifications (3)

To: Dr Troy McEwan/ Ms Melanie Simmons, CFBS/FHAD

Dear Troy and Melanie

SHR Project 2014/277 Understanding child-to-parent conflict in Australian families from the perspective of both teens and parents

Dr Troy McEwan, Ms Melanie Simmons (Student), Prof Prof James Ogloff – CFBS/FHAD
Approved duration: 01-01-2015 to 01-12-2016; extended to 28-02-2017 (October 2016)
Modified: March 2015; October 2015, October 2016.

I refer to your request concerning modifications to the above project protocol as emailed on 14 October 2016 with attachment. The request, concerning a shortening of the survey length, recruitment of an additional 100 participants, and extension of ethics clearance to 28 February 2017, was put to a SUHREC delegate for consideration.

I am pleased to advise that, as modified to date, the project may continue in line with ethics clearance conditions previously communicated and reprinted below.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

As before, best wishes for the project.

Yours sincerely,
Astrid Nordmann



Dr Astrid Nordmann | Research Ethics Coordinator
Swinburne Research | Swinburne University of Technology
Ph +61 3 9214 3845 | anordmann@swin.edu.au
Level 1, Swinburne Place South
24 Wakefield St, Hawthorn VIC 3122, Australia
www.swinburne.edu.au

From: Keith Wilkins **On Behalf Of** RES Ethics
Sent: Friday, 9 October 2015 4:55 PM
To: Troy McEwan <trncewan@swin.edu.au>
Cc: RES Ethics <resethics@swin.edu.au>
Subject: SHR Project 2014/277 - Ethics Clearance for Modifications (2)

To: Dr Troy McEwan/ Ms Melanie Simmons, CFBS/FHAD

Dear Troy and Melanie

SHR Project 2014/277 Understanding child-to-parent conflict in Australian families from the perspective of both teens and parents

Dr Troy McEwan, Ms Melanie Simmons (Student), Prof Prof James Ogloff – CFBS/FHAD; Assoc Prof Rosemary Purcell (Orygen)

Approved duration: 01-01-2015 to 01-12-2016

Modified: March 2015; October 2015

I refer to your request concerning modifications to the above project protocol as emailed on 7 October 2015 with attachment. The request, re expanded participant recruitment, was put to a SUHREC delegate for consideration.

I am pleased to advise that, as modified to date, the project may continue in line with ethics clearance conditions previously communicated and reprinted below.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

As before, best wishes for the project.

Yours sincerely

Keith

Keith Wilkins
Secretary, SUHREC & Research Ethics Officer
Swinburne Research (H68)

Swinburne University of Technology
P O Box 218
HAWTHORN VIC 3122
Tel +61 3 9214 5218
Fax +61 3 9214 5267

From: Keith Wilkins **On Behalf Of** RES Ethics
Sent: Tuesday, 10 March 2015 2:27 PM
To: Melanie Simmons; Troy McEwan
Cc: James Ogloff; RES Ethics
Subject: SHR Project 2014/277 - Ethics Clearance for Modifications (1)

To: Dr Troy McEwan/ Ms Melanie Simmons, CFBS/FHAD

Dear Troy and Melanie

SHR Project 2014/277 Understanding child-to-parent conflict in Australian families from the perspective of both teens and parents

Dr Troy McEwan, Ms Melanie Simmons (Student), Prof Prof James Ogloff – CFBS/FHAD; Assoc Prof Rosemary Purcell (Orygen)

Approved duration: 01-01-2015 to 01-12-2016

Modified: March 2015.

I refer to your request concerning modifications to the above project protocol as emailed on 4 March 2015 with attachment. The request, re changes to chief investigator and project title, aims and methods, was put to a SUHREC delegate for consideration.

I am pleased to advise that, as modified to date, the project may continue in line with ethics clearance conditions previously communicated and reprinted below.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

As before, best wishes for the project.

Yours sincerely

Keith

Keith Wilkins
Secretary, SUHREC & Research Ethics Officer
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HAWTHORN VIC 3122
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Fax +61 3 9214 5267

From: Astrid Nordmann
Sent: Friday, 14 November 2014 12:39 PM

To: Rosemary Purcell
Cc: RES Ethics; Melanie Simmons; James Ogloff
Subject: SHR Project 2014/277 - Ethics clearance

To: A/Prof. Rosemary Purcell, CFBS

SHR Project 2014/277 Understanding child-to-parent conflict in Australian families from the perspective of both teens and parents

A/Prof. Rosemary Purcell, Ms Melanie Simmons (Student), Prof. James Ogloff - CFBS
Approved duration: 01-01-2015 to 01-12-2016

I refer to the ethical review of the above project protocol by Swinburne's Human Research Ethics Committee (SUHREC). Your responses to the review, as emailed on 14 November 2014 with attachments, were put to the Committee delegate for consideration.

I am pleased to advise that, as submitted to date, ethics clearance has been given for the above project to proceed in line with standard on-going ethics clearance conditions outlined below. In issuing this clearance, the understanding is that research or funding agreements entered into to cover the research are in accord with the research protocol submitted for ethical review.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.
- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor requires timely notification and SUHREC endorsement.
- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring, self-audits and progress reports can be found at: <http://www.research.swinburne.edu.au/ethics/human/monitoringReportingChanges/>
- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the project number. Please retain a copy of this email as part of project record-keeping.

Best wishes for the project.

Yours sincerely,
Astrid Nordmann
Secretary, SUHREC

Dr Astrid Nordmann
Research Ethics Executive Officer

Swinburne Research (H68)
Swinburne University of Technology
PO Box 218, Hawthorn, VIC 3122
Tel: +613 9214 3845
Fax: +613 9214 5267
Email: anordmann@swin.edu.au

Final report acknowledgement SUHREC Project 2014/277

CRICOS Provider 00111D



-----Original Message-----

From: resethics@swin.edu.au [<mailto:resethics@swin.edu.au>]

Sent: Thursday, February 16, 2017 10:28 AM

To: Troy McEwan <tmcewan@swin.edu.au>

Cc: RES Ethics <resethics@swin.edu.au>

Subject: Acknowledgement of Report for SUHREC Project - 2014/277

Dear Troy,

Re: Final Report for the project 2014/277

'Understanding child-to-parent conflict in Australian families from the perspective of both teens and parents.' (Report Date: 16-02-2017)

The Final report for the above project has been processed and satisfies the reporting requirements set under the terms of ethics clearance.

Thank you for your attention to this matter.

Regards

Research Ethics Team

Swinburne Research (H68)

Swinburne University of Technology

PO Box 218

HAWTHORN VIC 3122

Tel: 03 9214 3845

Fax: 03 9214 5267

Email: resethics@swin.edu.au

SHR Project 2014/336 Ethics Clearance

Melanie Simmons

To: Troy McEwan
Subject: RE: SHR Project 2014/336 - Ethics clearance for modifications (3)

Sent: Thursday, 12 January 2017 10:58 AM
To: Troy McEwan <tmcewan@swin.edu.au>
Cc: James Ogloff <jogloff@swin.edu.au>; RES Ethics <resethics@swin.edu.au>; Melanie Simmons <msimmons@swin.edu.au>
Subject: RE: SHR Project 2014/336 - Ethics clearance for modifications (3)

To: Dr Troy McEwan, CFBS/FHAD

Dear Troy,

SHR Project 2014/336 Understanding child-to-parent conflict in Australian families from the perspective of young adults and parents

Dr Troy McEwan, Assoc Prof Rosemary Purcell, Ms Melanie Simmons (Student), Prof James Ogloff – CFBS/FHAD
Approved duration: 17-02-2015 to 16-01-2017 [adjusted and corrected]; extended to 28-02-2017 [January 2017]
Modified: March 2015, August 2015, January 2017.

I refer to your request to modify the approved protocol for the above project as emailed on 14 October 2016. The request (concerning extension of ethics clearance to 28/02/2017) was put to a SUHREC delegate for consideration.

I am pleased to advise that, as modified to date, the project may continue in line with standard ethics clearance conditions previously communicated and reprinted below. Please note that information on self-auditing, progress/final reporting and modifications/additions to approved protocols can now be found on the Research Ethics Internet pages.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the project number. A copy of this email should be retained as part of project record-keeping.

As before, best wishes for the project.

Yours sincerely,
Astrid Nordmann



Dr Astrid Nordmann | Research Ethics Coordinator
Swinburne Research | Swinburne University of Technology
Ph +61 3 9214 3845 | anordmann@swin.edu.au
Level 1, Swinburne Place South
24 Wakefield St, Hawthorn VIC 3122, Australia
www.swinburne.edu.au

From: Astrid Nordmann
Sent: Monday, 10 August 2015 10:38 AM
To: Melanie Simmons <msimmons@swin.edu.au>; Rosemary Purcell <rpurcell@swin.edu.au>
Cc: James Ogloff <jogloff@swin.edu.au>; Keith Wilkins <kwilkins@swin.edu.au>; RES Ethics <resethics@swin.edu.au>
Subject: RE: SHR Project 2014/336 - Ethics clearance for modifications (2)

To: Ms Melanie Simmons/Assoc Prof Rosemary Purcell, CFBS/FHAD

Dear Melanie and Rosemary

SHR Project 2014/336 Understanding child-to-parent conflict in Australian families from the perspective of young adults and parents

Assoc Prof Rosemary Purcell, Ms Melanie Simmons (Student), Prof James Ogloff – CFBS/FHAD

Approved duration: 17-02-2015 to 16-01-2017 [adjusted and corrected]

Modified: March 2015, August 2015.

I refer to your request concerning modifications to the above project protocol as emailed on 06 August 2015 with attachment. The request, re additional survey questions, was put to a SUHREC delegate for consideration.

I am pleased to advise that, as modified to date, the project may continue in line with ethics clearance conditions previously communicated and reprinted below.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

As before, best wishes for the project.

Yours sincerely,
Astrid Nordmann
(for Keith Wilkins)

Dr Astrid Nordmann
Research Ethics Officer
Swinburne Research (H68)
Swinburne University of Technology
PO Box 218, Hawthorn, VIC 3122
Tel: +613 9214 3845
Fax: +613 9214 5267
Email: anordmann@swin.edu.au

From: Keith Wilkins **On Behalf Of** RES Ethics
Sent: Tuesday, 10 March 2015 2:22 PM
To: Melanie Simmons; Rosemary Purcell
Cc: James Ogloff; RES Ethics
Subject: SHR Project 2014/336 - Ethics For Modifications (1)

To: Ms Melanie Simmons/Assoc Prof Rosemary Purcell, CFBS/FHAD

Dear Melanie and Rosemary

SHR Project 2014/336 Understanding child-to-parent conflict in Australian families from the perspective of young adults and parents

Assoc Prof Rosemary Purcell, Ms Melanie Simmons (Student), Prof James Ogloff – CFBS/FHAD

Approved duration: 17-02-2015 to 16-01-2017 [adjusted and corrected]

Modified: March 2015.

I refer to your request concerning modifications to the above project protocol as emailed on 4 March 2015 with attachment. The request, re changes to project title, aims and methods, was put to a SUHREC delegate for consideration.

I am pleased to advise that, as modified to date, the project may continue in line with ethics clearance conditions previously communicated and reprinted below.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

As before, best wishes for the project.

Yours sincerely

Keith

Keith Wilkins
Secretary, SUHREC & Research Ethics Officer
Swinburne Research (H68)
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HAWTHORN VIC 3122
Tel +61 3 9214 5218
Fax +61 3 9214 5267

From: Astrid Nordmann
Sent: Tuesday, 17 February 2015 9:47 AM
To: Rosemary Purcell
Cc: Melanie Simmons; James Ogloff; RES Ethics
Subject: SHR Project 2014/336 - Ethics clearance (Resending with corrected end-date)

To: A/Prof. Rosemary Purcell, CFBS

SHR Project 2014/336 Understanding child-to-parent conflict in Australian families from the perspective of young adults

A/Prof. Rosemary Purcell, Ms Melanie Simmons (Student), Prof. James Ogloff - CFBS
Approved duration: 17-02-2015 to 16-01-2017 [adjusted and corrected]

I refer to the ethical review of the above project protocol by Swinburne's Human Research Ethics Committee (SUHREC). Your responses to the review, as emailed on 16 February 2015, were put to the Committee delegate for consideration.

I am pleased to advise that, as submitted to date, ethics clearance has been given for the above project to proceed in line with standard on-going ethics clearance conditions outlined below. In issuing this clearance, the understanding is that research or funding agreements entered into to cover the research are in accord with the research protocol submitted for ethical review.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.

- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor requires timely notification and SUHREC endorsement.
- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring, self-audits and progress reports can be found at: <http://www.research.swinburne.edu.au/ethics/human/monitoringReportingChanges/>
- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the project number. Please retain a copy of this email as part of project record-keeping.

Best wishes for the project.

Yours sincerely,
Astrid Nordmann
for Keith Wilkins, Secretary - SUHREC

Dr Astrid Nordmann
Research Ethics Executive Officer
Swinburne Research (H68)
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PO Box 218, Hawthorn, VIC 3122
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Email: anordmann@swin.edu.au

Swinburne HREC Final Report for Project 2014/336 Acknowledgement

Melanie Simmons

From: Troy McEwan
Sent: Wednesday, 15 March 2017 2:52 PM
To: Melanie Simmons
Subject: FW: Acknowledgement of Report for SUHREC Project - 2014/336

fyi

Dr Troy McEwan | Senior Lecturer in Clinical and Forensic Psychology Centre for Forensic Behavioural Science |
Swinburne University of Technology and Forensicare

Mail: 505 Hoddle St, Clifton Hill, VIC, Australia 3068
Ph: +61 3 9947 2621
Web: www.swin.edu.au/cfbs

CRICOS Provider 00111D

-----Original Message-----

From: resethics@swin.edu.au [mailto:resethics@swin.edu.au]
Sent: Wednesday, March 15, 2017 2:06 PM
To: Troy McEwan <tmcewan@swin.edu.au>
Cc: RES Ethics <resethics@swin.edu.au>
Subject: Acknowledgement of Report for SUHREC Project - 2014/336

Dear Troy,

Re: Final Report for the project 2014/336

'Understanding child-to-parent conflict in Australian families from the perspective of young adults and parents'
(Report Date: 15-03-2017)

The Final report for the above project has been processed and satisfies the reporting requirements set under the terms of ethics clearance.


Thank you for your attention to this matter.

Regards
Research Ethics Team

Swinburne Research (H68)
Swinburne University of Technology
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Appendix C

Turnitin Receipt



Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author:	Melanie Simmons
Assignment title:	Your Thesis
Submission title:	Thesis
File name:	THESIS_DOCUMENT_2017.10.18.d..
File size:	3.59M
Page count:	308
Word count:	72,322
Character count:	439,547
Submission date:	28-Oct-2017 09:44 PM (UTC+1100)
Submission ID:	870364192

MEASURING AND UNDERSTANDING CHILD-TO-PARENT ABUSE 1

Measuring and understanding child-to-parent abuse in Australia
Melanie L. O. Simmons
Institute of Technology

Article Title
(Include any grant/funding information and a complete correspondence address)

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Appendix D

Personal Communication with Ibabe, M. I.

Melanie Simmons

From: Maria Izascun Ibabe Erostarbe <izaskun.ibabe@ehu.eus>
Sent: Tuesday, 26 September 2017 10:28 PM
To: Melanie Simmons
Subject: Re: CPAQ

Hello Melanie,

For example you could use "technical abuse" and "zero tolerance" of García-Díaz et al. (2013) in the dating violence context:

"Technical abuse" is considered to exist when the response "sometimes" or more in terms of frequency is received in response to any indicator.

The "zero tolerance" criterion includes "Rarely" or more in terms of frequency is received in response to any indicator.

García-Díaz V., Fernández-Feito A., Rodríguez-Díaz F. J., López-González M. L., Mosterio-Díaz M. P., & Lana-Pérez A. (2013). Violencia de género en estudiantes de enfermería durante sus relaciones de noviazgo [Gender violence in nursing students during their dating relationships]. *Atención Primaria*, 45, 290–296.

This criterion is used in our paper:

Ibabe, I., Arnoso, A., & Elgorriaga, E. (2016). Ambivalent sexism inventory: Adaptation to Basque population and sexism as a risk factor of dating violence. *Spanish Journal of Psychology*, 19, 1–9.
doi:10.1017/sjp.2016.80

Best regards,

Izaskun

Melanie Simmons <msimmons@swin.edu.au> escribió:

> Hi Izaskun,
>
> Thank you for that. It appears that I have a different version of the
> scale (I have reattached it here for your reference). It is scored
> from 0- Never to 5- Very often. Do you have any guidance regarding
> severity cut-offs for this scale or would it be better to not include
> this in my paper.
>
> Cheers,
> Melanie
>

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