A Dissertation

entitled

Investigating an Alternative Conceptualization of

Relational Aggression in an Emerging Adult Sample

by

Ariana P. Rebesco

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Psychology

___________________________________________

Jeanne Brockmyer, Ph.D., Committee Chair

___________________________________________

Wesley Bullock, Ph.D., Committee Member

___________________________________________

Stanley Edwards, Ph.D., Committee Member

___________________________________________

Yueh-Ting Lee, Ph.D., Committee Member

___________________________________________

Joni Mihura, Ph.D., Committee Member

___________________________________________

Dr. Amanda Bryant-Friedrich, Dean
College of Graduate Studies

University of Toledo

August 2016
Copyright 2016, Ariana P. Rebesco

This document is copyrighted material. Under copyright law, no parts of this document may be reproduced without the expressed permission of the author.
Relational aggression is often conceptualized as an individual and social problem. However, a comprehensive review of the literature reveals a much more ambiguous story. There is both an empirical and theoretical basis for exploring the possibility that an alternative conceptualization of this phenomenon may be more accurate. In the current project, an empirical investigation was conducted to compare the dominant pathological conceptualization of relational aggression to an alternative conceptualization. The Young Adult Conflict Resolution and Aggression questionnaire, the Indirect Aggression Scale, and the Mental Health Inventory were completed by 209 college students. Curvilinear regressions were conducted to obtain goodness-of-fit statistics for both linear and curvilinear models of the relationship between relational aggression and both psychological distress and anxiety. While a curvilinear model was significant for both analyses, the slope was in the opposite direction than anticipated. Similarly, contrary to expectations, follow-up t-tests on the residuals suggested that neither model was a statistically significant “better fit” to the data for either of the analyses. Implications of
the results are discussed and limitations and recommendations are outlined. While results of the current study are not conclusive, findings suggest that further theoretical and empirical examination of alternative conceptual models of relational aggression is warranted.
To my Family for making me who I am,

To Dr. Brockmyer for making this project possible,

To my clients past, present, and future for making this project *worth it*,

Thank You.
Table of Contents

Abstract iii

Table of Contents vi

List of Tables x

List of Figures xi

I. Review of the Literature 6

A. An Introduction to Relational Aggression 6
   a. History and Background 6
   b. Definition 7
   c. Gender and Relational Aggression 9
   d. Developmental Considerations 11
   e. Functions of Relational Aggression 14
   f. Empirical and Conceptual Challenges 15
      1. Detection and Classification 16
      2. Measurement 17

B. Overview of Related Constructs 19
   a. Indirect and Social Aggression 20
   b. Bullying 22
   c. Physical Aggression 23

C. Relational Aggression as an Individual and Social Problem 25
   a. Defining Individual and Social Problems 26
   b. Evaluating the Evidence 27
      1. Statistical Abnormality 27
2. Psychological Distress 30
3. Maladaptive 32
4. Significantly Impaired Functioning 36
5. Harms or Violates the Rights of Others 39
6. Deviation from Social Norms and Expectations 42

c. Interpretation of Available Evidence 44
d. Implications 46

D. Theoretical Considerations 47

a. Theoretical Origins of the Construct of Relational Aggression 47
b. Dominant Contemporary Theories 49
c. Alternative Theoretical Perspectives 51
   1. Evolutionary Perspectives: Resource-Control Theory 52
   2. Clinical Perspectives: Attachment Theory 55
d. Conclusions 57

E. Statement of the Problem and Purpose of the Study 59

F. Hypotheses 60

G. Descriptive and Exploratory Questions 61

II. Method 62

A. Participants 62
   a. Recruitment 62
   b. Sample Characteristics 62

B. Measures 64
   a. Indirect Aggression Scale 64
b. Young Adult Conflict Resolution and Aggression Scale  65

c. Mental Health Inventory  66

C. Administration Procedures  68

III. Results  70

A. Scoring Procedures and Measure Descriptives  70

a. MHI: Psychological Distress  70

b. MHI: Anxiety Subscale  70

c. MHI: Psychological Well-being  71

d. YACRA-S  71

e. IAS-A  72

B. Creating the Composite Relational Aggression Score  74

a. Gender Differences  74

C. Primary Analyses  74

a. Psychological Distress and Relational Aggression  76

b. Anxiety and Relational Aggression  79

c. Psychological Well-being and Relational Aggression  82

IV. Discussion  85

A. Discussion of Unexpected Findings  87

B. Additional Findings  88

a. Gender Differences  88

b. Race and Ethnicity  89

C. Implications  90

a. Implications for Theory & Research  90

viii
b. Implications for Intervention 91

D. Limitations & Future Directions 93

E. Conclusions 95

References 96

Appendices

A. Indirect Aggression Scale – Aggressor Version 121

B. Young Adult Conflict Resolution and Aggression Scale – Self-Report 122

C. Mental Health Inventory 123

D. Demographics Questionnaire 133

E. Study Instructions 134

F. Debriefing Statement 135
List of Tables

Table 1. Examples of Forms of Aggression throughout Development…………….12
Table 2. Age of Participants by Gender…………………………………………...63
Table 3. School Year of Participants by Gender…………………………………..63
Table 4. Race and/or Ethnicity of Participants by Gender………………………...64
Table 5. Descriptive Statistics for YACRA-S Items………………………………72
Table 6. Descriptive Statistics for the IAS-A by Gender………………………….73
List of Figures

Figure 1. Scatterplot Illustrating the Relationship Between Psychological Distress and Relational Aggression…………………………………………………………..76

Figure 2. Scatterplot Illustrating the Relationship Between Anxiety and Relational Aggression………………………………………………………………………78

Figure 3. Scatterplot Illustrating the Relationship Between Psychological Well-being and Relational Aggression……………………………………….79
Introduction

“Whoever reaches into a rosebush may seize a handful of flowers; but no matter how many one holds, it's only a small portion of the whole. Nevertheless, a handful is enough to experience the nature of the flowers. Only if we refuse to reach into the bush, because we can't possibly seize all the flowers at once, or if we spread out our handful of roses as if it were the whole of the bush itself -- only then does it bloom apart from us, unknown to us...”

— Lou Andreas-Salomé

Aggression is defined by prominent researchers as any action intended to damage, harm, hurt, or injure another person (Anderson & Bushman, 2002). Yet, aggression has been historically operationalized in a more constricted manner. Overt and direct forms of physical and verbal aggression dominated the focus of empirical investigation for many years. As a result of this narrow scope of inquiry, scientific understanding of aggression remains incomplete, at best, and inaccurate, at worst. There is increasing recognition of the need to expand the focus of aggression research in order to gain a more comprehensive understanding of this broad facet of human behavior.

Relational aggression was introduced into the empirical lexicon in an attempt to address the above-mentioned need (Crick & Grotpeter, 1995). While the behaviors associated with relational aggression vary across context and lifespan, this form of aggression is generally delineated from others by the identified vehicle of harm. More specifically, threats to relational security and sense of belonging are the primary mechanisms of harm, in contrast to the physical safety threats of many other previously explored forms of aggression.

Over the past 20 years, relational aggression has been extensively researched. Empirical investigations have largely been guided by conceptualization of relational aggression as an individual and social problem. However, when available empirical
findings are evaluated against the field’s established criteria for identifying individual and social problems, significant ambiguity is evident. For example, while relational aggression may be undesirable, it is far from atypical; research suggests relational aggression is common even in adulthood (Lawrence, Yoon, Langer, & Ro, 2009; Werner & Crick, 1999). Similarly, while some associations are found between relational aggression and psychological distress or maladaptive constructs, these findings are often unreliable, and unexpected adaptive correlates have also been found (Heilbron & Prinstein, 2008).

Empirical advancement is likely hindered by the lack of theoretical development in this area (Heilbron & Prinstein, 2008). The majority of current relational aggression research is based in broad (not specific to relational aggression) developmental psychopathology and social cognitive frameworks (Murray-Close, Nelson, Ostrov, Casas, & Crick, 2016). Research based in these theories is often guided by the a priori assumption that relational aggression is maladaptive and pathological. Inconsistent and unexpected findings, including the sometimes adaptive nature of relational aggression, are not predicted and/or explained by these theories. Theoretical oversights continue to hinder our understanding of relational aggression, leading to misrepresentation and disorganization of the ever-expanding empirical literature on relational aggression.

Noting the evidence that suggests there are both adaptive and maladaptive “sides” to relational aggression, a handful of researchers have challenged the dominant pathological conceptualization of this phenomenon (Banny, Heilbron, Ames, & Prinstein, 2011; Bukowski & Abecassis, 2007; Chesney-Lind, Morash, & Irwin, 2007; Hawley, 2007; Xie, Cairns, & Cairns, 2002). Particularly informative empirical developments
have arisen from work rooted in an evolutionary psychology framework known as Resource Control Theory (RCT), which deliberately considers both the costs and benefits of relational aggression (Hawley, 2003b). Research guided by RCT suggests that contrary to dominant expectations, highly relationally aggressive individuals can achieve better social outcomes than non-aggressive individuals, when they balance high levels of relational aggression with high levels of prosocial behavior (Hawley, 2007; Hawley, 2014; Hawley, Shorey, & Alderman, 2009; Hawley, Stump, & Ratliff, 2011). RCT and associated research findings suggest that the relationship between relational aggression and social functioning is mediated by prosocial behavior and that, contrary to dominant conceptualizations, relational aggression is not always maladaptive, even at high levels. These findings provide an alternative explanation of many of the inconsistencies and contradictions that abound in this area of research.

RCT-based research illustrates the importance of exploring alternative conceptualizations of relational aggression. While RCT provides a framework for understanding and exploring the relationship between relational aggression and social functioning, RCT is less informative regarding the relationship between relational aggression and emotional functioning. Clinical theories and perspectives may be uniquely suited for further theory development. More specifically, proponents of RCT recently highlighted attachment theory (Bowlby, 1969) as a clinical complement to their evolutionary psychology-informed theory (Hawley et al., 2009).

Attachment-based conceptualizations of aggression have much to offer our understanding of the relationship between relational aggression and emotional functioning. Attachment-based perspectives suggest that relational aggression is best
conceptualized as a normative behavior that, at typical levels, can facilitate individual and relational processes that promote secure attachment and emotional well-being (Moretti, DaSilva, and Holland, 2004). At the same time, attachment theory and attachment-based research suggests that both low and high “extremes” of relational aggression may be markers of insecure attachment and would, therefore, be associated with higher levels of psychological dysfunction and distress (Ainsworth, Blehar, Waters, & Wall, 1978; Oka, Sandberg, Bradford, & Brown, 2014; Wilson, 2011). In other words, attachment theory suggests a curvilinear relationship between relational aggression and psychological distress.

Studies rooted in developmental psychopathology and social cognitive perspectives typically explore a linear relationship between relational aggression and psychological and emotional distress, producing notably inconsistent results (Burton, Hafetz, & Henninger, 2007; Dahlen et al., 2013; Marshall, Arnold, Rolon-Arroyo, & Griffith, 2015; Ozdemir, Kuzucu, & Koruklu, 2013; Prinstein, Boerger, & Vernberg, 2001). The possible curvilinear relationship suggested by attachment theory has yet to be tested directly. If the attachment theory-informed conceptualization is accurate, it could account for inconsistent findings between studies using linear models.

The purpose of the current study is to empirically investigate a normative conceptualization of relational aggression by testing a curvilinear model of the relationship between relational aggression and psychological distress and comparing this model to the dominant linear model. Identification of a more accurate conceptualization of relational aggression may help resolve the inconsistencies and contradictions that abound in this area of research, deepen our understanding of this phenomenon, and
ultimately improve our efforts to develop effective, empirically-based resources for both aggressors and victims.
Chapter One

Review of the Literature

An Introduction to Relational Aggression

**History and background.** There are few human behaviors that have received as considerable attention and widespread interest as aggression, a phenomenon which captivates psychological researchers, professionals from a wide-variety of disciplines, and laypeople, alike. Generations of psychologists have attempted to bring clarity and scientific understanding to this generally undesirable phenomenon, with the overarching goal of reduction and prevention (Anderson & Bushman, 2002). Despite extensive scientific investigation, aggression persists as a widespread issue in contemporary society. There is still much about aggression that remains unexplored and unknown.

Some of the limits of our knowledge and understanding of aggression are due to the complexity of the phenomenon itself, while other limitations have arisen from the ways in which aggression has been explored empirically. Aggression is conceptualized to include any behavior intended to damage, harm, hurt, or injure another person (Bushman & Huesmann, 2010). Yet, research has traditionally focused on a narrower subset of overt aggressive behaviors, which primarily fall into the categories of physical and verbal aggression. The narrow lens of empirical exploration resulted in a limited, and skewed, understanding of aggression. Notably, a problematic gender bias arose in the literature (Bjorkqvist, 1994; Crick & Grotpeter, 1995). Attempts have been made, only recently, to address this bias by widening the scope of aggression research.

Historically, research findings suggested that overt forms of aggression are exhibited by males at much higher rates than females (Archer, 2004). These findings
were interpreted, for many years, as evidence that males are fundamentally more aggressive than females. Some prominent researchers in this area even went as far as to argue that females did not exhibit sufficient levels of aggression to warrant inclusion in associated studies (Buss, 1961; Olweus, 1978). Subsequent research was guided by a conceptualization of aggression as a predominantly male concern.

At the same time, unexpected and contradictory findings continued to accumulate. For example, the suspected link between testosterone and aggression was not consistently supported by research, and no gender differences were found in studies of domestic violence (Bjorkqvist, 1994; Straus, Gelles, & Steinmetz, 1974). Perhaps most surprisingly, males and females frequently reported similar amounts and degrees of anger, one of the primary emotional antecedents of aggressive behavior (Archer, 2004; Werner & Crick, 1999).

Accommodating and integrating these previously unexpected findings, researchers increasingly explored the possibility that females are not necessarily less aggressive than males but that female-typical aggression simply manifests in different forms than those previously researched. In relatively recent years, significant attention has been given to a wider range of aggressive behaviors in order to rectify the hypothesized gender bias in aggression literature (Bjorkqvist, 1994; Crick & Grotpet, 1995).

**Definition.** Relational aggression is defined as any act intended to harm a targeted individual by way of manipulation, damage, or threat, to the individual’s relationships or sense of inclusion (Crick & Grotpet, 1995). When initially introduced, relational aggression was thought to be representative of a previously overlooked form of
aggression that is most effective at undermining female social priorities (Crick & Grotpeter, 1995). It is delineated, conceptually, from other forms of aggression by the identified vehicle of harm. Relational security and sense of inclusion are targeted, rather than, for example, the physical or emotional safety targeted by many other common (theoretically “male-typical”) forms of aggression. This conceptual difference has practical implications. Pre-existing social connection, friendship, and/or relational intimacy is needed between perpetrator and the targeted individual in order for relational aggression to bring about intended harm.

A wide variety of behaviors falls under the conceptual umbrella of relational aggression. Frequently cited examples include threatening to end a friendship, spreading rumors or gossip, criticizing or undermining an individual in front of others, excluding an individual from social gatherings or group activities, and withholding typically-present attention, friendliness, companionship, or emotional intimacy (Crick, Casas, & Nelson, 2002; Lento-Zwolinski, 2007; Ostrov & Godleski, 2007; Werner & Crick, 1999). Relational aggression can be verbal (e.g., making critical or dismissive comments to the individual in front of others), nonverbal (e.g., ignoring phone calls or texts), direct (e.g., explicitly denying an individual inclusion in a group activity), or indirect (e.g., talking negatively about someone behind his/her back, asking others to exclude the individual from group activities) (Murray-Close, Ostrov, & Crick, 2007; Murray-Close et al., 2010). This seemingly heterogeneous category of behaviors is grouped together as relational aggression by one defining feature: use of intimate relationships as the vehicle of harm.

Relational aggression is a relatively new scientific term that represents a long-standing and recognizable social phenomenon. The most overt and extreme forms of
relational aggression are readily identified and familiar to both professionals and laypeople. In the United States, noteworthy public attention was brought to relational aggression after the publication of Rosalind Wiseman’s (2002) popular press book, *Queen Bees & Wannabes: Helping Your Daughter Survive Cliques, Gossip, Boyfriends, and the New Realities of Girl World*, and the blockbuster movie that this book inspired, *Mean Girls* (Fey & Waters, 2004). As clearly suggested by these titles, relational aggression is frequently represented in popular culture as a typically female form of aggression.

**Gender and relational aggression.** Consistent with popular culture representations of relational aggression, initial theoretical conceptualizations predicted that females would be more relationally aggressive than males. However, anticipated gender differences have not been consistently supported by research. Unexpected evidence has accumulated challenging gender-related conceptualizations of relational aggression (Archer 2004; Heilbron & Prinstein, 2008; Murray-Close et al., 2010).

In early and middle childhood samples, some studies have supported anticipated gender differences in relational and physical aggression (see Crick, Ostrov, & Kawabata, 2007 for review). For example, in one of the pioneering studies of relational aggression in 3rd through 6th graders, male participants primarily exhibited overt (physical and verbal) aggression, while female participants primarily exhibited relational aggression (Crick & Grotpeter, 1995). At the same time, empirical findings related to gender differences in relational aggression in adolescence and adulthood have been notably inconsistent with expectations. Some studies have found no gender differences in use of relational aggression during these developmental periods (Anguiano-Carrasso & Vigil-
Colet, 2011; Bailey & Ostrov, 2007; Coyne, Manning, Ringer, & Bailey, 2007; Crick et al., 2007; Linder, Crick, & Collins, 2002; Verona, Sadeh, Case, Reed, & Battacharjee, 2008). Other studies have found evidence to suggest that males utilize more relational aggression than females during emerging adulthood (Dahlen et al., 2013; Loudin, Loukas, & Robinson, 2003; Storch, Bagner, Geffken, & Baumeister, 2004).

Multiple meta-analyses have been conducted in order to bring clarity to gender-related differences in relational aggression. Results of meta-analyses suggest generally equivalent levels of relational aggression across genders, regardless of developmental period (Archer, 2004; Card, Stucky, Sawalani, & Little, 2008). Interestingly, gender differences have been found to be moderated by research methods. When relational aggression is assessed and measured using researcher observations, teacher ratings, and parent ratings, females are typically found to exhibit more relational aggression than males (Archer, 2004; Card et al., 2008). Similarly, studies with the word “gender” in the title tend to produce findings suggesting anticipated gender differences in relational aggression (Card et al., 2008). On the other hand, studies utilizing self-report are more likely to suggest the absence of significant gender differences in relational aggression (Archer 2004; Card et al., 2008).

Some have argued that gender biases and gender-related stereotypes influence observer reports and that self-reports offer a more accurate representation of relational aggression as a gender-neutral construct (Chesney-Lind, Morash, & Irwin, 2007). However, it is difficult to offer definitive interpretation of the factors that moderate gender differences in relational aggression. What is clearer, however, is that research findings generally do not support the original conceptualization of relational aggression
as a female-typical form of aggression. Available research suggests that relational aggression is not simply the female counterpart to the male-typical physical aggression but is, instead, an alternative form of aggression utilized by males and females, alike.

**Developmental considerations.** Relational aggression has been most frequently explored in school-aged child and adolescent samples, as relational aggression was initially thought to be primarily limited to these developmental periods (Crick & Grotpeter, 1995). However, subsequent research has suggested that relational aggression is prevalent throughout development (Burt, Donnellan, & Tackett, 2012). Initial manifestations of relational aggression have been detected in children as young as 3-years-old (Crick et al., 2007). Relational aggression has also been detected in samples of emerging adults in college and university settings (Werner & Crick, 1999; Dahlen et al., 2013), adults in workplace settings (Hershcovis & Reich, 2013), and older adults in assisted living facilities (Trompetter, Scholte, & Westerhof, 2011).

As previously discussed, relational aggression can be implemented via a wide variety of behaviors. There are verbal and non-verbal, direct and indirect, and overt and covert variations of relational aggression. However, these variations are not exhibited consistently across the lifespan; some are more common to certain developmental periods than others (Archer & Coyne, 2005). Behavioral manifestations of relational aggression appear to evolve over time, initially presenting in overt and direct forms and gradually developing into more covert and subtle social strategies (Card et al., 2008). See Table 1 for a summary of typical forms of aggression by developmental period.
Table 1

*Examples of Forms of Relational Aggression Throughout Development* (Adapted from Archer & Coyne, 2005)

<table>
<thead>
<tr>
<th>Early Childhood Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threaten to end the friendship if don’t do what they want</td>
</tr>
<tr>
<td>Not invite to party if don’t do what they want</td>
</tr>
<tr>
<td>Threaten to exclude if don’t do what they want</td>
</tr>
<tr>
<td>Refuse to listen to someone they are mad at; cover their ears</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle Child/Pre-Adolescence Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gossip</td>
</tr>
<tr>
<td>Spread rumors</td>
</tr>
<tr>
<td>Backbite</td>
</tr>
<tr>
<td>Break confidences</td>
</tr>
<tr>
<td>Criticize clothes and personality behind back</td>
</tr>
<tr>
<td>Ignore</td>
</tr>
<tr>
<td>Deliberately leave others out of the group</td>
</tr>
<tr>
<td>Social ostracism/exclusion</td>
</tr>
<tr>
<td>Turn others against</td>
</tr>
<tr>
<td>Become friends with another as revenge</td>
</tr>
<tr>
<td>Imitate behind back</td>
</tr>
<tr>
<td>Embarrass in public</td>
</tr>
<tr>
<td>Anonymous notes</td>
</tr>
<tr>
<td>Practical Jokes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adult Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in addition to continuation of some previous forms)</td>
</tr>
<tr>
<td>Say something hurtful that appears rational when questioned</td>
</tr>
<tr>
<td>Put undue pressure on someone</td>
</tr>
<tr>
<td>Judge others in an unjust manner</td>
</tr>
<tr>
<td>Reduce the other’s opportunity to express opinions</td>
</tr>
<tr>
<td>Openly dismiss the opinions of others</td>
</tr>
<tr>
<td>Influence others by making feel guilty</td>
</tr>
<tr>
<td>Ignore phone calls/texts</td>
</tr>
<tr>
<td>Pretend to be hurt to make feel bad</td>
</tr>
<tr>
<td>“Steal” boyfriend/girlfriend</td>
</tr>
<tr>
<td>Withdraw attention and intimacy</td>
</tr>
<tr>
<td>Spend time with another person to create jealousy</td>
</tr>
</tbody>
</table>

During childhood, overt and direct forms of relational aggression are most commonly exhibited (Crick et al., 2002; Crick, Ostrov, Appleyard, Jansen, & Casas, 2004). Relational aggression is typically employed immediately in face-to-face situations (Ostrov & Godleski, 2007). Manifestations of relational aggression in early childhood
are likely to be unambiguously aggressive. For example, one child may say directly to another, “I won’t be friends with you unless you play this game with me.” As this example suggests, the perpetrator and target are easily identified and differentiated, and the aggressive act is easily detected and identified.

Throughout adolescence, increasingly sophisticated cognitive, emotional, and social skills are developed. Adolescents are motivated to, and capable of, refraining from making affiliative contingencies and aggressive intentions explicit. Relational aggression becomes increasingly subtle and covert (Murray-Close et al., 2007). The relational vehicle of harm, and even the intention of harm itself, becomes much more difficult to detect and definitively label (Murray-Close et al., 2007). Ignoring a comment or phone call, excluding an individual from typical plans or activities, making indirect comments that undermine an individual’s social standing, and withholding typical emotional or relational intimacies are more common manifestations of relational aggression during later adolescence and adulthood (Verona et al., 2008).

Theoretically, the subtle and sophisticated relational aggression strategies developed throughout adolescence (and carried into adulthood) are remarkably “effective.” An individual is able to inflict substantial pain and/or damage, while simultaneously avoiding risk, responsibility, or punishment (Bjorkqvist, 1994; Crick et al., 2002). Furthermore, ambiguity regarding intention of harm has the potential to inflict additional relationally-associated damage; targeted individuals may struggle to identify a clear source of felt pain and may be unable to easily gain support in navigating these ambiguous conflicts.
For example, ignoring the phone calls of an intended target would likely inflict some degree of psychological pain, particularly if phone contact is otherwise typical in the relationship. At the same time, the individual committing the aggressive act could easily deny the aggressiveness of the act to others, or even themselves, by creating a plausible non-aggressive explanation of the behavior (e.g., “I was just really busy this week.”). The targeted individual may struggle to validate their own pain, and/or gain as much support from others, when the triggering act is framed as a result of a busy schedule, rather than an intentional act of harm. The subtlety and ambiguity of relational aggression in later adolescence and adulthood facilitates increased harm to the target. Unfortunately, as will be discussed further below, this also poses a significant methodological challenge when attempting to detect, measure, and understand this form of aggression in later developmental periods.

**Functions of relational aggression.** Central to all forms of aggression, including relational aggression, is the intention to harm. However, the broader purpose, or function, of aggressive behavior varies (Bailey & Ostrov, 2007; Ostrov & Houston, 2008). Aggression typically serves a contextualized function beyond desire to harm another individual.

When children were asked to describe their perceived purposes for using relational aggression, responses fell into a multiple categories, including the following: to alleviate boredom or create excitement, to gain group acceptance, to perpetuate the organizational structure of the social network, and to retaliate for a previous act of aggression (Owens, Shute, & Slee, 2000). Adolescents reported similar reasons for using relational aggression: to create stimulation, to regulate group processes (e.g., group
inclusion, social dominance, popularity, maintaining large social networks), to protect oneself from a real or perceived threat, and to communicate a particular “negative” emotional state (e.g., jealousy, anger, sadness, insecurity) to an individual or social group (Owens et al., 2000; Pronk & Zimmer-Gembeck, 2010). Self-reported functions of relational aggression have not been explored in adult samples. However, when hypothetical situation vignettes were used to identify the factors that precipitate relational aggression in college students, hurt feelings uniquely contributed to relational aggression, while anger did not (McDonald & Asher, 2012).

Individuals who use relational aggression identify a wide-range of functions of this behavior. Taken together, available evidence suggests that harm is typically the means, rather than the ends, of relational aggression. As will be discussed further below, this has noteworthy implications for the study of relational aggression, particularly as compared to physical aggression.

**Empirical and conceptual challenges.** There are many challenges that complicate the understanding of relational aggression, particularly in later developmental periods. As previously referenced, relational aggression is easily detected when it manifests in the overt and direct forms typically exhibited in childhood. Just as a punch, bite, or kick is effortlessly identified as an aggressive act, there is little ambiguity when one child says to another, “I won’t be friends with you unless you give me that toy.” This is a clear, purposeful, and directed threat to a relationship. Intention to harm (or, more accurately in this case, *threat* to harm) is inherent to the act, regardless of additional functions of the behavior. The resulting ease in detection and classification also allows for ease in measurement. Observer reports, from a wide variety of peer and authority
figure sources, can be easily obtained. As relational aggression becomes more subtle and covert, detection, classification, and measurement all become increasingly complicated tasks.

**Detection and classification.** The variety of functions that physical aggression serves does not typically impact detection and classification. A punch is readily viewed as an act of aggression, regardless of if it is used to steal lunch money or to protect one’s safety. In extremely rare instances, hitting someone may not be viewed as an act of aggression (e.g., if an individual was falling and accidentally hit a person in close proximity when flailing for balance). However, in general, acts of physical aggression involve clear intention or harm (or, at the very least, the realistic expectation of harm) and unavoidable harm (to varying degrees) to the target, regardless of the function and/or other relevant contextual factors.

On the other hand, the various functions of relational aggression, in combination with the ambiguous nature of associated behaviors, pose a unique challenge to studying relational aggression when compared to physical aggression. Many behaviors associated with relational aggression are much more ambiguous (i.e., not inherently linked to intention/expectation of harm), which creates a significant challenge for accurate classification of related behaviors, particularly in certain contexts. While an individual may feel hurt in response to the behavior of a peer, the experienced pain may be just as plausibly collateral damage resulting from a benign act as it could be the intended outcome of an aggressive act (Geiger, Zimmer-Gembeck, & Crick, 2004).

Imagine a scenario in which two friends typically talk on the phone every Thursday evening. However, this week, one friend does not answer the other’s phone
call. The friend who initiated the phone call feels hurt. The friend who ignores the phone call dismisses the incident as a result of a hectic schedule but also talks with other friends about feeling annoyed by this particular friend’s hurt reaction and having recently felt annoyed in many other interactions with this individual. Even within the context of conflict and the function of protecting oneself from threat, ignoring the phone call and talking with others could just as easily be benign (avoidance of potentially hurtful conversation and seeking appropriate social support, respectively) as these acts could be aggressive (intended to harm sense of inclusion and social standing to retaliate and/or encourage change of behavior).

As relational aggression is currently defined, the actor’s intentions are necessary for accurate classification. However, harmful intention may not be easily identified by outside observers, given the ambiguous nature of the types of behaviors associated with relational aggression and the variety of functions these behaviors may serve. The nature of the perpetrator and target’s relationship, the cycles and dynamics within this relationship, and the broader social context are all important variables when attempting to accurately detect and classify relational aggression (Hershcovis & Reich, 2013).

**Measurement.** The detection and classification issues described above significantly complicate empirical investigation of the more covert and subtle forms of relational aggression. Overt and explicit forms exhibited during childhood allow for systematic observations in naturalistic settings (e.g., school) and observer reports (e.g., teachers) to provide relatively reliable and valid inferences regarding relational aggression (Ostrov & Godleski, 2007). On the other hand, the forms of relational aggression typically developed in adolescence and exhibited throughout adulthood are
often too covert to be detected by a researcher who is outside of the social network. Inside knowledge, such as the relationship history of those involved, accurate social context, and the experience and intentions of both aggressor and victim, is necessary in order to accurately detect particular instances of relational aggression (Hershcovis & Reich, 2013). Therefore, naturalistic observation and observer reports are not sufficient for detecting and measuring the more subtle forms of relational aggression.

For example, imagine a scenario in which one student is sitting in a classroom and another enters, says nothing, and starts to read. An outside observer would be unable, simply from this observation, to correctly classify this behavior, even if the first student is obviously hurt by the other’s lack of engagement. If these two students are close friends who typically talk together before class, different conclusions could be made than if these two students do not have a close relationship and rarely interact socially. Furthermore, even if these two students are close friends, the behavior could be indicative of something other than an intentional act of harm, such as the second student’s anxiety regarding an exam later in the day or narrow focus due to a need to complete readings before class. Both the relationship history of this dyad and the context of interaction are needed to determine if this is an act of aggression or an indication of something else, such as poor social skills or preoccupation with non-social tasks.

As this example suggests, the observational methods that are useful for detecting and measuring relational aggression in childhood are insufficient for capturing the more subtle forms of relational aggression typical in later developmental periods. Unfortunately, laboratory-based methods are also unlikely to be illuminating. Since experimenter manipulation of pre-existing relationships would raise significant ethical
concern, the most viable laboratory-based approaches would separate relational aggression from its necessary context of established intimate relationships.

At present, self-report and peer-report methods are most commonly used to study relational aggression in adolescence and adulthood (Gregoski, Malone, & Richardson, 2005; Heilbrun & Prinstein, 2008; Loudin et al., 2003; Murray-Close, Han, Cicchetti, Crick, & Rogosch, 2008; Werner & Crick, 1999). Unfortunately, there are still limitations to these preferred approaches. Self-reports are susceptible to demand characteristics or social desirability-related influences, which lead to underreporting of behavior (Gregoski et al., 2005). Furthermore, individuals may not always be aware of the aggressive nature of their actions and may under-report aggressive behavior, even when attempting to be honest (Richardson & Green, 2006). Similarly, peers are not always aware of the intentions behind observed or experienced actions of others, and their reports may be biased by a variety of factors, including their global impression of the individual about whom they are reporting (Verona et al., 2008). Despite limitations, self- and peer-reports are still preferred over the alternatives, as these methods accommodate the crucial “insider knowledge” necessary to detect relational aggression during later developmental periods.

**Overview of Related Constructs**

Aggression and associated constructs have received noteworthy empirical attention. The resulting body of literature is cluttered with a multitude of terms, concepts, and classifications. The position of relational aggression within the pre-existing nomological network has been extensively explored and widely debated. A comprehensive review of this issue is beyond the scope of the current project. However,
a brief overview of four related terms and constructs (indirect aggression, social aggression, bullying, and physical aggression) is provided to both highlight relevant definitional issues and contextualize current understanding of relational aggression.

**Indirect and social aggression.** Noteworthy debate and confusion surrounds the associations between relational aggression and two other previously delineated forms of aggression known as *indirect aggression* and *social aggression*. Both of these terms entered the empirical lexicon prior to relational aggression. The necessity of a new term and its unique contribution to the literature has been extensively debated, particularly by leading researchers in each of these areas.

Indirect aggression is defined as an intentionally harmful act designed to appear “as though there is no intention to hurt at all” (Björkqvist, Lagerspetz, & Kaukiainen, 1992, p. 118; Lagerspetz, Bjorkqvist, & Peltonen, 1988). On the other hand, social aggression is defined as “the manipulation of group acceptance through alienation, ostracism, or character defamation” (Cairns, Cairns, Neckerman, Ferguson, & Gariépy, 1989, p. 323). While indirect aggression is defined by the aggressor’s identified goal (to simultaneously maximize harm and minimize risk), social aggression, like relational aggression, is defined by a specific vehicle of harm (social acceptance).

There are substantive differences found between the core theoretical frameworks espoused by the pioneering researchers in each of these areas (Archer & Coyne, 2005). Yet, conceptually, there is obvious overlap between these constructs. Results of a systematic, integrated literature review suggest that, in practice, the behaviors assessed and measured in studies of indirect, social, and relational aggression are generally the same (Archer & Coyne, 2005). Despite theoretical distinctions, behaviors such as gossip,
exclusion from social activities, and withdrawal of attention or friendliness are examples frequently provided for all three forms of aggression.

Similar conclusions have also been reached via statistical methods (Coyne, Archer, Eslea, 2006; Warren, Richardson, & McQuillin, 2011). For example, Coyne et al. (2006) conducted a factor analysis on data collected with the Indirect/Social/Relational Aggression scale (ISRA), which is a self-report inventory used to determine the frequency with which adolescents use different forms of aggression. When compared to both physical and verbal aggression, relational, indirect, and social aggression were found to be much more strongly related than would be expected from truly distinct constructs. Warren, Richardson, & McQuillin (2011) conducted a factor analysis using four independent measures developed by indirect, relational, and overt aggression researchers and also found no significant differences between relational and indirect aggression as they are currently measured by the leading researchers in these areas.

The definitional controversy surrounding the terms indirect, social, and relational aggression remains unresolved in the literature; no professional consensus has been reached and all three terms continue to be used. However, available evidence suggests that these terms all refer to a similar underlying construct or, at the very least, are not typically measured in a way that captures potentially meaningful distinctions. Studies originally published using the terms indirect aggression, social aggression, and relational aggression are included throughout the current paper. However, the term relational aggression is exclusively utilized for consistency and ease to the reader. This term was chosen over the others due to impressions that relational aggression is the most
recognizable term to intended readers, as it is commonly used in both academic and non-academic contexts in the United States.

**Bullying.** In the popular media, relational aggression is often referred to as “girl bullying.” Similarly, the terms “relational aggression” and “relational bullying” are used interchangeably by some researchers (Hawley et al., 2011; Swearer, Siebecker, Johnsen-Frerichs, & Wang, 2010). Despite these practices, relational aggression and bullying are both conceptually and empirically distinct.

Bullying is perpetrated via harmful or negative actions intentionally directed towards a targeted individual (Olweus, 1994). There are no conceptual limitations in regards to method or vehicle or harm; bullying can be verbal, physical, relational, social, direct, or indirect (Swearer et al., 2010). Bullying is distinguished from other aggression constructs by the following two distinct features: (1) the harmful behaviors are continually repeated over time (a cycle or repeated pattern of behavior) and (2) there is an imbalance of social, physical, and/or psychological power between perpetrator and victim (Olweus, 1994).

Although relational aggression and bullying both involve purposeful harm, the other features of these constructs are distinct. Research suggests that bullying and aggression only have 25% shared variance (Pepler, Jiang, Craig, & Connolly, 2008). All acts of relational bullying involve relational aggression but all acts of relational aggression do not reach the bullying threshold. Isolated acts of relational aggression do not meet definitional criteria for bullying. The distinction between relational aggression and bullying is particularly important given striking evidence of the maladaptive nature of bullying,
There is extensive empirical evidence linking bullying perpetration and victimization to a multitude of maladaptive outcomes (Hawley et al., 2011). One of the most notable longitudinal studies of bullying found that 60% of individuals identified as bullies in 6th through 9th grade were convicted of a crime by age 24 (Olweus, 1993). However, a closer examination of these results suggests that this likelihood of arrest is only applicable for individuals using direct bullying strategies and is not true for those who exclusively utilized relational approaches. Available evidence suggests that many of the most severe and socially-relevant bullying-related outcomes are associated with a limited subset of bullying behaviors (Hawley et al., 2011).

Available evidence suggests that relational aggression and bullying are clearly distinct constructs. It is particularly important to maintain this distinction, since the maladaptive and pathological nature of bullying is reliably supported by research, while conceptualization of relational aggression remains unclear (Hawley et al., 2011). As Chesney-Lind, Morash, and Irwin noted, “a problem with the conceptual mixing of the notion of relational aggression with bullying is that it can open the door, or widen the net, for greater…scrutiny of [certain] behaviors, without attention to whether these behaviors actually constitute harmful bullying” (2007, p. 331).

**Physical aggression.** As previously noted, overt verbal and physical aggression historically dominated the focus of aggression research. The literature on physical aggression is expansive and has undeniably influenced the trajectory of relational aggression research. In some ways, this has been helpful, as it has allowed research to progress much more swiftly than it would have otherwise. In other ways, however, presumed parallels between physical and relational aggression may impede the
development of a more accurate and comprehensive understanding of the unique aspects of relational aggression.

Physical aggression is defined as any behavior intended to harm a targeted individual via damage or threat to damage physical health and safety (Anderson & Bushman, 2002). Physical aggression is broadly considered an individual and social problem and is conceptualized as an antisocial human behavior with maladaptive and harmful outcomes. Research suggests that physical aggression is associated with arrest, divorce, alcohol problems, depression, physical health problems, and poor educational and occupational outcomes (Huesmann, Dubow, & Boxer, 2009).

Relational aggression and physical aggression are clearly delineated by vehicle of harm and are unambiguously distinct at a behavioral level (Verona et al., 2008). The contexts in which these two forms of aggression are most commonly employed also differ. While physical aggression is typically directed at acquaintances and strangers, relational aggression is most successful when employed within the aggressor’s own peer group (Crick & Grotpete, 1995). Longitudinal research also suggests that relational aggression and physical aggression progress along two distinct developmental trajectories and most likely represent distinct underlying constructs (Vaillancourt, Brendgen, Boivin, & Tremblay, 2003). Lastly, physical aggression and relational aggression are associated with different outcomes. Most acts of physical aggression are inherently criminal, while most acts of relational aggression do not constitute rule-breaking or illegal behavior.

Research has failed to consistently support initial theory-based conceptualizations of relational aggression as the female-typical counterpart to physical aggression. Available evidence suggests that relational aggression is an alternative form of
aggression utilized by both males and females and that there are a variety of significant differences between relational aggression and physical aggression. There may be interest in exploring connections between these two constructs, given that they both are included in the broad category of aggression. However, assuming parallels between these two constructs may lead to misunderstanding and false conclusions (Chesney-Lind et al., 2007). Although physical aggression has been established as a maladaptive, pathological, and illegal behavior, the nature of relational aggression remains less clear.

**Relational Aggression as an Individual and Social Problem**

When initially introduced into the literature, relational aggression was framed as an individual and social problem (Crick & Grotpeter, 1995). Parallels were readily drawn between relational aggression and physical aggression, and research was guided by the theories and strategies employed throughout the extensive body of literature on physical aggression (Crick & Grotpeter, 1995; Geiger et al., 2004). However, many of the initial assumptions about relational aggression have not been supported by research findings.

A review of the literature calls into question the dominant conceptualization of relational aggression as an individual and social problem and suggests that an alternative conceptualization should be examined. Continued attempts to fit relational aggression into the physical aggression model of pathology may be misguided, and failure to explore alternative models is likely preventing accurate understanding of this construct. A review and evaluation of relevant research is provided below.
Defining individual and social problems. Evaluating and labeling the nature of any behavior is a complex task, particularly in situations in which clear lines are drawn between bipolar classifications, such as “normal” and “abnormal,” “adaptive” and “maladaptive,” or “healthy” and “pathological.” Further complicating this task is that there are many ways to approach identification and classification of “good” and “bad” behaviors. In the field of psychology, categorizing a behavior as a problem is not a statement of judgment, just as concluding that a certain behavior is normative is not a statement of approval or a reflection of a particular attitude; these classifications represent the extent to which available empirical evidence fits outlined criteria.

To ensure objectivity when identifying individual and social problems, specific guidelines and criteria have been outlined. In the area of clinical psychology, mental disorders (i.e., individual problems) are identified through 5 associated features: statistical abnormality, psychological distress, impaired functioning, association with maladaptive outcomes, and deviation from social norms (American Psychiatric Association, 2000). In the area of social psychology, antisocial behaviors (i.e., social problems) are identified by 5 similar features: harm or violation of the rights of others, statistical abnormality, impairment in functioning, association with negative outcomes, and illegal or counter-normative classification (Burt et al., 2012). According to the accepted standards of the field, empirical support for these associated features must be present in order to appropriately categorize a psychological phenomenon as an individual problem.

---

1 Although the DSM 5 was recently published, the criteria outlined in the DSM-IV are used here for multiple reasons. First, at a conceptual level, there is significant overlap between the criteria in both versions of the DSM. Second, DSM-IV criteria is of most familiarity to researchers and has been used to evaluate past research in this area. Third, the DSM-IV criteria align with the criteria associated with antisocial behaviors, allowing for clearer organization of findings in the current discussion.
or social problem, regardless of other factors, such as attitudes or beliefs about the behavior. While there is no clear tipping point at which a particular behavior or experience becomes an individual or social problem, the criteria outlined above provide a structured framework for identifying potentially problematic phenomena.

**Evaluating the evidence.** Before evaluating relational aggression research using established criteria, it is first important to note several factors of consideration when evaluating these findings. First, there have been few longitudinal studies in this area; most of the research has been correlational in design. Therefore, it is difficult to establish a sequential order between relational aggression and related phenomenon. Risk factors, outcomes, and associated features often cannot be distinguished from one another (Dahlen et al., 2013). Similarly, there is a significant correlation between perpetration and victimization, suggesting that separating outcomes and associations by role may not accurately represent the phenomenon at hand. As argued by Herschcovis and Reich, “…designation of the enactors of this mistreatment script as either perpetrator or target has created an artificial separation that does not advance our science (2013, p. 29).” Lastly, most of the studies in this area have been limited to investigations of negative or maladaptive correlates, so the lack of research findings related to positive, adaptive, or healthy correlates in any particular area cannot necessarily be used to confirm the absence of positive features.

**Statistical abnormality.** Evidence from non-clinical samples suggests that relational aggression is prevalent throughout development (Burt et al., 2012). Relational aggression is identified as one of the most common forms of aggression by both children and adolescents and is endorsed at relatively high rates, even on self-report measures.
(Crick, Bigbee, & Howes, 1996). For example, in a national survey of adolescents (in 6\textsuperscript{th} through 10\textsuperscript{th} grade), 51.4\% of respondents reported perpetration of relational aggression (Wang, Iannotti, & Nansel, 2009).

Despite initial hypotheses that relational aggression is primarily limited to childhood and adolescence, research suggests that relational aggression is also widespread during emerging adulthood (Archer, 2004; Verona et al., 2008). And, although there are fewer studies of relational aggression beyond emerging adulthood, available evidence suggests that relational aggression continues to be exhibited in later developmental periods. For example, in a study of conflict-related behaviors in newly married couples, 80\% of husbands and wives reported engaging in relationally aggressive behaviors in the first three years of marriage (Lawrence et al., 2009). Similarly, in a large study of public-sector employees, 71\% of respondents indicated that they had experienced relational aggression in their workplace in the past five years (Cortina, Magley, Williams, & Langhout, 2001). Lastly, in a study of older adults living in an assisted living facility, self-reports indicated that 19\% of residents experienced relational victimization, while nurse reports indicated that 41\% of residents were victims of relational aggression (Trompetter et al., 2011). Given these findings, researchers generally agree that a certain amount or degree of relational aggression is normative (Crick et al., 2002; Lento-Zwolinski, 2007; Underwood, Galen, & Paquette, 2001; Xie et al., 2002).

Available evidence suggests that relational aggression is not statistically abnormal. Yet, it remains unclear what the normative amount or degree of relational aggression is and at what point relational aggression becomes atypical. An extensive
review of the literature failed to provide any specific normative rates or levels of severity. Similarly, the literature is absent of objective cut-offs for the “highly relationally aggressive” groups that are of particular interest to researchers. There is also little discussion of the best approach to identifying these potential benchmarks and if they would be most appropriately defined at certain rates (frequency), levels (quantity of trait-aggressiveness), or in certain forms.

In one study using both qualitative and quantitative methods, daily diaries of aggressive behavior kept by 5th and 7th graders indicated that these students utilized, on average, two acts of relational aggression per day (Dyches & Mayeux, 2012). Findings of this nature provide a more objective rate-based benchmark from which statistically abnormal cut-offs could be created. However, these findings have not been replicated in other samples. Therefore, the generalizability and usefulness of these findings are limited and cannot be used, in isolation of additional data, to determine objective cut-offs.

While rate-based benchmarks have the potential to be informative during earlier developmental periods, they may be less so during later developmental periods when rates of these behaviors are suspected to drop. However, research suggests that some types of relational aggression may be more atypical, and potentially more problematic, than others during adulthood. For example, results of one study indicated that some forms of relational aggression are more common than others within adult romantic relationships. When 336 married couples reported on their spouse’s behavior during conflict, almost all wives and most (i.e., slightly less but still a majority) husbands endorsed the use of relationship withdrawal strategies (e.g., intentional ignoring, withholding of affection and intimacy) (Carroll et al., 2010). However, strategies
damaging broader social standing (e.g., malicious gossip, involving others in the argument, and public embarrassment) were endorsed at much lower rates. Results of this study suggest that certain types of relationally aggressive behaviors may be more atypical, and potentially more problematic, than others, at least at certain developmental periods and relational contexts.

Taken together, available evidence suggests that relational aggression, as a broad construct, is common, even in non-clinical populations. Relational aggression becomes atypical at certain rates and levels, and certain types of relational aggression may be atypical during certain periods of development and/or social contexts. However, as broadly defined and typically measured, relational aggression is not statistically abnormal.

**Psychological distress.** Prior to reviewing findings in this area, it may be helpful to clarify the general ways in which psychological distress has been explored by researchers. Throughout the literature, psychological distress is frequently assessed using measures of anxiety and depression. In this context, these terms (i.e., anxiety and depression) refer to the broad, sub-clinical constructs, not the associated mental health diagnoses. It is also important to note that this section only focuses on research that has explored the association between distress and reported relational aggression perpetration. Studies examining the connection between distress and reported victimization will be reviewed when discussing harm and violation to others.

Across all developmental periods, associations have been found between relational aggression and psychological distress. In preschool-aged and elementary school-aged children, markers of anxiety and depression have been observed in
individuals who also exhibit relational aggression (Crick, 1997; Crick & Grotpeter, 1995; Juliano, Werner, & Cassidy, 2006; Zimmer-Gembeck, Hunter, & Pronk, 2007).

Similarly, links have been found between relational aggression and psychological distress in adolescents (Loukas, Paulos, & Robinson, 2005; Ozdemir et al., 2013). In emerging adult samples, associations have been found between relational aggression and self-reports of general anxiety symptoms, affiliation anxiety, depression symptoms, guilt, discomfort, stress, and feelings of loneliness. (Bagner, Storch, & Preston, 2007; Dahlen et al., 2013; Goldstein, Chesir-Teran, & McFaul, 2007; Leenars & Lester, 2011; Loundin et al., 2003; Ostrov & Godleski, 2007; and Werner & Crick, 1999).

At the same time, the apparent connection between relational aggression and emotional distress is not unambiguous; findings across studies have been inconsistent. For example, in some studies in various developmental periods ranging from preschool to emerging adulthood, negative correlations have been found between depression and relational aggression (Ostrov, Woods, Jansen, Casas, & Crick, 2004; Sandstrom & Cillessen, 2010). In one study, no link was found between relational aggression and distress in male participants (Werner & Crick, 1999). In another study, a link was found between depression and relational aggression in male participants but no link was found between depression and relational aggression in female participants (Lento-Zwolinski, 2007). Examples such as these, studies with findings that do not support pathological conceptualizations of relational aggression, are found throughout the literature (Marshall et al., 2015).

In an attempt to clarify the association between relational aggression and psychological distress, two key meta-analyses have been conducted. The first, which
included 26 published studies using participants ranging from pre-school-aged to high school-aged, found, on average, a small effect size for the relationship between relational aggression and psychological distress (r = .10) (Card et al., 2008). The second meta-analysis was conducted on a larger scale, including both 25 published journal articles and 17 unpublished dissertations with participants ranging in ages 5- to 17-years-old (Marshall et al., 2015). These authors found a significant but small association between relational aggression and psychological distress (average r = .24, SD = .16). At the same time, the undeniable inconsistency across studies was highlighted; effects were found to range from medium and small positive correlations to negative correlations (r = -.17 to r = .62) (Marshall et al., 2015).

Taken together, available evidence largely suggests that there is some degree of association between perpetration of relational aggression and psychological distress. Still, this association, when explored using linear models, appears to be small overall, and findings are notably inconsistent in this area. Also, the methods used for measuring psychological distress typically includes assessment of sub-clinical levels of anxiety and depression, so severity and implications of the suggested association remains unclear.

**Maladaptive.** Maladaptive behaviors are those that increase the risk of individual pain, suffering, and problematic outcomes. As previously noted, research in this area has been somewhat biased, as maladaptive correlates of relational aggression have received the overwhelming majority of attention, and adaptive correlates are less frequently explored (Smith, 2007). Nevertheless, research findings are mixed regarding maladaptive associations to relational aggression, and unexpected adaptive links have also been found.
The most consistent findings in this area suggest a link between relational aggression and other externalizing behaviors (Crick, 1997; Prinstein et al., 2001). Research suggests, for example, that there is an association between relational aggression and impulsivity, hyperactivity, and oppositional behaviors in both preschool-aged and elementary school-aged children (Crick, Casas, & Nelson, 1997; Crick, Ostrov, Appleyard, Jansen, & Casas, 2004; Juliano et al., 2006; Zalecki & Hinshaw, 2004). Similar connections have been found between relational aggression and delinquency, hyperactivity, and impulsivity in adolescent samples (Herrenkohl, Catalano, Hemphill, & Toumbourou, 2009; Ostrov & Godleski, 2007). Lastly, some studies of emerging adults have found that relational aggression is associated with alcohol use, unethical behavior, impulsivity, and stimulation-seeking behavior (Burt et al., 2012; Dahlen et al., 2012; Leenars & Lester, 2011; Werner & Crick, 1999).

Some studies also suggest that relational aggression is associated with maladaptive personality features. Relational aggression has been linked to egocentricity and revenge-seeking tendencies in elementary school-aged children (Delveaux & Daniels, 2000) and antisocial traits (e.g., anger, callousness, and a lack of empathy) in adolescents (Kaukiainen et al., 1999; Marsee & Frick, 2007). By the same token, relational aggression has been linked to mania and a variety of Cluster B personality disorder features (borderline, narcissistic, and antisocial) in emerging adults (Burt et al., 2012; Herrenkohl et al., 2009; Leenars & Lester, 2011; Ostrov & Godleski, 2007). Specific connections have been found between relational aggression and emotional dysregulation (Werner & Crick, 1999), low levels of agreeableness and empathy (Burton
et al., 2007), and lack of perspective-taking abilities in emerging adults (Loudin et al., 2003).

The link between relational aggression and maladaptive cognitive processes or skills has also been explored. While some research supports hypotheses regarding this association, there are also inconsistencies in this area. For example, some evidence from elementary school-aged and emerging adulthood samples supports the proposed link between relational aggression and the maladaptive social-cognitive process known as hostile attribution bias (Crick, 1995; Crain, Finch, & Foster, 2005; Ostrov & Houston, 2008). On the other hand, other studies from the same developmental periods have found a negative association between relational aggression and hostile attribution bias (Crain et al., 2005) and a positive association between relational aggression and adaptive social-information processing skills (Andreou, 2006). Similarly, in some studies of preschool-aged children, relational aggression has been primarily associated with generally adaptive cognitive processes, such as verbal skills (Juliano et al., 2006) and developmentally-advanced moral reasoning skills in girls (Hawley, 2003b).

Findings regarding the association between relational aggression and empathy are also inconsistent. Some studies suggest that the frequently anticipated negative association between relational aggression and empathy may be weak and/or vary by gender or age. For example, one study utilizing a sample comprised of 10-, 12-, and 14-year-olds found a significant negative correlation between empathy and relational aggression in 12-year-olds but not in 10- and 14-year old participants (Kaukiainen et al., 1999). Also, in a sample of emerging adults, the negative correlation between empathy
and relational aggression was only found for males but not for females (Lento-Zwolinski, 2007).

Beyond the inconsistent support for anticipated maladaptive associations, links have also been found between relational aggression and skills, traits, and behaviors that are generally conceptualized as adaptive. In preschool-aged samples, relational aggression has been associated with average to above average social skills (Carpenter & Nangle, 2006) and prosocial behavior (Ostrov et al., 2004). Similarly, in elementary school-aged children, social awareness (Andreou, 2006) and relationship-maintaining conflict resolution skills (Delvaux & Daniels, 2000) have been found in association with relational aggression. Positive associations between relational aggression and prosocial skills have also been found in adolescent (Kaukiainen et al., 1999) and emerging adult samples (Werner & Crick, 1999), and a recent study of college students found an association between relational aggression and the cognitive-analytic facet of social intelligence (Crothers, Kolbert, Kanyongo, Field, & Schmitt, 2014).

In summary, a review of available research suggests that somewhat consistent associations are found between relational aggression and a variety of externalizing behaviors (e.g., impulsivity and hyperactivity) that are maladaptive, particularly at higher levels. However, these findings do not necessarily provide sufficient support for broadly characterizing relational aggression as maladaptive. Some studies suggest that the relationship between relational aggression and anticipated maladaptive cognitive processes is either variable (by age or gender) or weak (hence, the inconsistency). Additionally, a variety of unanticipated adaptive correlates have also been identified. Research suggests a connection between relational aggression and both prosocial skills
and social intelligence. The link to socially adaptive factors challenges and significantly complicates conceptualization of relational aggression as purely maladaptive.

Lastly, while the lack of longitudinal studies in this area prohibits definitive conclusions regarding the temporal order of found associations (i.e., differentiation between risk factors and outcomes), the nature of many of the associated factors suggests that they are more likely to be risk factors for relational aggression (as opposed to the other way around). For example, characterizing impulsivity, stimulation-seeking tendencies, emotion dysregulation, and egocentricity as risk factors for relational aggression is more logical (given the nature of these constructs) than conceptualizing them as associated outcomes.

Taken together, available evidence seems to be inconclusive in regards to labeling relational aggression as a maladaptive construct (i.e., a behavior that increases risk of harmful outcomes). Further research is needed to clarify the ambiguous and unexpected findings in this area.

*Significantly impaired functioning.* Impaired functioning is a defining feature of both individual and social problems and is indicated by evidence of significantly disabled or compromised functioning in key domains (e.g., social, academic, or occupational). Relational aggression research has focused extensively on social functioning, as aggression is widely suspected to be a marker of social incompetence. Findings related to other areas of functioning are included below when available.

Evidence is mixed regarding the extent to which relational aggression is linked to impairment in social functioning. For example, in preschool aged samples, some studies have found a connection between relational aggression and interpersonal conflict.
(Sebanc, 2003), peer-rejection for girls (Crick et al., 1997), and peer exclusion for boys (Ostrov & Keating, 2004). At the same time, other studies in preschool-aged samples have shown a positive association between relational aggression and the following indicators of healthy relational functioning: relational intimacy (Crick & Grotpeter, 1995; Heilbron & Prinstein, 2008; Murray-Close et al., 2007), quantity of stable friendships (Burr, Ostrov, Jansen, Cullerton-Sen, & Crick, 2005), peer acceptance for boys (Crick et al., 1997), and higher amiability for girls (Nelson, Robinson, & Hart, 2005).

Similar contradictory evidence is found in elementary school-aged samples. While a consistent link has been found between relational aggression and both negative relationship quality (Crick et al., 2007) and peer rejection (Crick & Grotpeter, 1995; Murray-Close & Crick, 2006; Werner & Crick, 2004; Zimmer-Gembeck et al., 2007), no association was found between relational aggression and quantity of mutual friendships (Grotpeter & Crick, 1996). Furthermore, some evidence suggests that relational aggression is associated with higher popularity (Andreou, 2006) and increased intimacy in relationships in elementary school-aged children (Grotpeter & Crick, 1996).

Findings in adolescent samples are comparable to those in earlier developmental periods. While some studies provide evidence for an association between relational aggression and markers of impaired social functioning, such as peer rejection (Vaillancourt & Hymel, 2006) and friendship conflict (Cillessen, Jiang, West, & Laszkowski, 2005), others suggest an association with successful social functioning. For example, relational aggression has been linked to peer acceptance and popularity in adolescent samples (Cillessen & Borch, 2006; Leadbeater, Boone, Sangster, & Mathieson, 2006). Using self-reports and coded observations of peer interactions, Banny
and colleagues found an association between relational aggression and positive friendship quality in adolescents (2011). Interestingly, another study found significant correlations between relational aggression and both positive and negative friendship quality in the same sample of adolescents (Cillessen et al., 2005).

The relationships between relational aggression and social and academic functioning were explored in a unique (in terms of methodology) and frequently cited longitudinal study (Xie et al., 2002). Relational aggression and physical aggression were evaluated in 520 participants starting in 4th and 7th grade (Xie et al., 2002). A baseline level of relational and physical aggressiveness was determined at the start of the study and semi-structured interviews were conducted each year annually until 12th grade. The results of this study suggest that there is no relationship between relational aggression and low academic competence or being unpopular. In contrast to physical aggression, relational aggression did not put students at risk to drop out of school. Furthermore, contrary to widespread expectations, relational aggression was commonly associated with “Olympian scores,” which include being good at sports, winning, and attractiveness (Xie et al., 2002). The results of this study do not support the often-hypothesized long-term negative impact of relational aggression on either social or academic functioning.

There have been fewer studies of social functioning in emerging adult samples. However, available findings are similar to those described above. Relational aggression in emerging adulthood has been linked to peer rejection (Linder et al., 2002; Werner & Crick, 1999) and lower relationship quality (Linder et al., 2002). Furthermore, both male and female emerging adults identified as highly relationally aggressive through peer nominations reported that their interpersonal relationships are tumultuous and that their
same-sex interactions contain a relatively high amount of conflict and animosity (Murray-Close & Crick, 2006; Werner & Crick, 1999). However, exclusivity in romantic relationships (Lento-Zwolinski, 2007), prosocial behavior (Werner & Crick, 1999), and social intelligence (Crothers et al., 2014) have also been found in association with relational aggression in emerging adults.

Given widespread assumptions regarding the maladaptive and pathological nature of relational aggression, connection between relational aggression and social impairment has been widely anticipated. However, research in this area is overwhelmingly inconsistent. While some connections have been found between relational aggression and markers of social impairment, many association have also be found between relational aggression and markers of robust social functioning. Further research is needed to clarify these seemingly contradictory findings.

**Harms or violates the rights of others.** Given that relational aggression is, by definition, directed at others, its impact on targeted individuals is particularly relevant in evaluating the potentially problematic nature of this behavior. Findings in this section are presented in terms of impact to the victim. However, it is important to note that a strong association has been found between relational aggression and relational victimization (Hershcovis & Reich, 2013; Leenaars & Lester, 2011). Therefore, despite the fact that relational aggression and relational victimization are often investigated and discussed separately, it is not accurate to conceptualize “aggressors” and “victims” as two distinct groups of people; there is significant overlap between these groups.

Research suggests that targets of relational aggression perceive these behaviors as harmful. For example, in a qualitative exploration of victimization in an emerging adult
sample, relational aggression was identified as one of the most common ways participants had been hurt by their peers (Werner & Crick, 1999). Furthermore, victims of relational aggression within an adult romantic relationship indicated that they perceived these behaviors as inflicting at least as much harm as physical aggression (Lawrence et al., 2009). In addition to perceived harm, reports of relational victimization are associated with a variety of internalizing and externalizing difficulties throughout development, including anxiety, depression, loneliness, negative self-perception, aggression, irritability, and low self-esteem (Crick & Bigbee, 1998; Crick & Grotpeter, 1996; Hoglund & Leadbeater, 2007; Leenaars & Lester, 2011; Linder et al., 2002; Ostrov et al., 2004).

Some studies have found that although most people have been victims of relational aggression at some point in their life, only a small percentage of victims experience significant negative outcome and/or consequences (Theodore-Oklosta et al., 2014). As such, a variety of individual factors that may mediate the impact of relational victimization have been explored. For example, in a sample of elementary school-aged children, self-blame for victimization was linked with lower problem-solving and higher reactive externalizing issues in response to relational victimization (Visconti, Sechler, & Kochenderfer-Ladd, 2013). Also, in a study of adolescents, a link between relational victimization and indicators of psychological distress (i.e., depression and anxiety) was found, but social perspective awareness (i.e., the ability to tolerate different perspectives) lowered the association (Hoglund & Leadbeater, 2007). Furthermore, in a study of relational aggression in an emerging adult sample, no persistent or extreme negative psychological outcomes were found for those victims without pre-existing
psychopathology (Zwolinski, 2012). Another study similarly suggested that relational victimization is more distressing for emerging adults with preexisting interpersonal sensitivity (Lento, 2006).

Other factors, such as age and gender may also be relevant to the impact of relational victimization. Studies have been inconsistent with respect to whether gender mediates the association between relational victimization and children’s psychosocial adjustment. For example, in some studies of elementary school-aged children, only girls reported that relational aggression was “very hurtful” and distressing, while boys did not (Crick, 1995; Galen & Underwood, 1997). Similarly, in some studies of adolescents, relational victimization is positively linked to marijuana use, physical aggression, and social anxiety and negatively related to global self-worth only for females (Crick & Bigbee, 1998; Paquette & Underwood, 1999; Sullivan, Farrell, & Kliewer, 2006). In regards to impact of relational aggression across development, findings from a cross-sectional study of 12- to 18-year suggested that as age increases, the association between distress and relational victimization decreases (Tisak, Wichorek, & Tisak, 2011).

Taken together, these findings suggest that there is an association between relational victimization, distress, and a variety of other problems, but that individual differences abound in this area. Furthermore, the most common methods used in these studies are insufficient for drawing inferences regarding direct causality between relational victimization and negative outcomes. Evidence suggests that there may be a variety of individual factors that mediate the relationship between victimization and associated problems.
Given the high prevalence rates of relational aggression, it is likely that most people have been relationally victimized at some point in their lives. Evidence suggests that relational victimization is unpleasant and hurtful but that only a small portion of relational aggression victims experience significant, long-term consequences (Theodore-Oklota, Orsillo, Lee, & Vernig, 2014). It remains unclear at what point, in which contexts, or for what types of people, victimization has a significant and lasting negative impact. Further research is needed to clarify these issues.

**Deviation from social norms and expectations.** By including deviation from social norms and expectations as a criterion of both individual and social problems, there is some acknowledgement that few, if any, human behaviors are inherently, and universally, problematic. In an attempt to make culturally-sensitive decisions, this criterion is intended to prevent dominant or powerful groups or individuals from pathologizing behaviors that are typical or acceptable within another group.

As previously referenced, relational aggression is common at certain levels and is generally legal. Although research assessing social attitudes regarding these behaviors is limited, available evidence is more consistent with the conceptualization of relational aggression as a more socially acceptable behavior than other forms of aggression. For example, mothers of preschoolers generally indicated that they would do nothing (i.e., not punish) if they observed their child being relationally aggressive (Werner, Senich, & Przepyszny, 2006). In comparison to physical aggression, both teachers and mothers indicated that they believed relational aggression is less hurtful, less serious, more acceptable, more positive, and less deserving of punishment than other forms of aggression (Bauman & Del Rio, 2006; Holt & Keyes, 2004; Werner & Grant, 2009).
Similarly, college students view relational aggression as more acceptable and less harmful than physical aggression (Basow, Cahill, Phelan, Longshore, & McGillicuddy-DeLisi, 2007).

Within groups, the perceived acceptability of relational aggression may vary depending on other factors, such as the gender and relationship of those involved (Williams, Richardson, Hammock, & Janit, 2012). For example, when elementary school-aged children were asked to evaluate a variety of scenarios involving relational aggression, they evaluated direct relational aggression as less acceptable than indirect relational aggression and acts perpetrated by perceived enemies as worse than acts perpetrated by perceived friends (Sumrall, Ray, & Tidwell 2000). Similarly, Dyches & Mayeux (2012) also found that the specific type of act impacts the acceptability of relational aggression; gossip was evaluated by 5th and 7th graders as malicious and unacceptable, while ignoring someone was considered acceptable.

While there is limited research regarding social attitudes and beliefs, evidence suggests that relational aggression is socially acceptable, to some degree. The acceptability of relational aggression in “lay person” groups is often acknowledged and labeled as a problem by researchers arguing for the necessity of intervention and prevention programs. Targeting normative beliefs regarding relational aggression and promoting cognitive beliefs that reject and pathologize relational aggression are common recommendations in this area (e.g., Nixon & Werner, 2010). However, evidence suggests that general perceptions of relational aggression may be less pathological than researcher conceptualizations.
Interpretations of available evidence. Despite the guidelines created by both clinical and social psychologists to support objective, empirically-supported classification decisions, there is no bright line demarcating human behaviors that are normative from those that are problematic. Professional judgment is necessary to bridge the gap between isolated empirical findings and “big picture” inferences. Reviewing the same body of literature outlined above, many researchers conclude, definitively, that relational aggression is an individual and social problem (Dahlen et al., 2013; Crick et al., 2002; Geiger et al., 2004; Leff et al., 2010; Ostrov & Keating, 2004). The inconsistencies and unexpected findings are not viewed as representative of the “true” state of affairs, but instead, are often interpreted and explained in a way that maintains the pathological conceptualization of relational aggression.

For example, many researchers have suggested that the inconsistencies and contradictions found throughout research on relational aggression are due to the previously discussed measurement issues (e.g., Archer, 2004). Since relational aggression is difficult to elicit through experimental manipulation and is often impossible to detect through naturalistic observation, self- and other- reports are most often utilized. Some have argued that this method limits the reliability and validity of research in this area and makes the observed inconsistencies and contradictions inevitable. However, it is important to note that many of the within-group (i.e., within developmental period) inconsistencies and contradictions are found rather consistently throughout development. In other words, findings are ambiguous even in early developmental periods when naturalistic observations are used. Therefore, it seems that all of these unexpected (i.e.,
inconsistent with a pathological conceptualization) findings cannot be dismissed as measurement-related “noise.”

Other researchers have provided theoretical explanations for unanticipated results, interpreting findings to reinforce conceptualization of relational aggression as an individual and social problem. For example, findings in one study suggested a link between relational aggression, peer group centrality, popularity, and exclusivity (Loundin et al., 2003). These associations are not necessarily consistent with hypothesized link between relational aggression and social impairment. Rather than exploring a variety of possible implications of these unexpected findings, researchers interpreted these findings in a way that maintained the pathological conceptualization. More specifically, the unassessed constructs of “fear of negative evaluation” and anxiety were introduced to ultimately produce a pathologically-consistent interpretation of their findings (Loundin et al., 2003). The pathological nature of relational aggression was assumed and seemingly contradictory findings were interpreted in a somewhat convoluted manner to fit this assumption.

Similarly, although research suggests that intimacy is a critical component of positive relationship quality (Fletcher, Simpson, & Thomas, 2000), researchers have reinterpreted the consistently-found association between relational aggression and intimacy to fit a pathological conceptualization. More specifically, several researchers explained this unexpected association by arguing that high levels of intimacy could be used to create dependence and gain information that could later be used to control others using relational aggression (Crick & Grotpeter, 1995; Heilbron & Prinstein, 2008;
Murray-Close et al., 2007). Non-pathological and/or adaptive possibilities were not explored.

**Implications.** A priori assumptions regarding the pathological nature of relational aggression not only hinder our understanding of relational aggression but also have broader implications, particularly in regards to application of this research. Over the past 20 years, there has been a significant increase in school-based programs targeting relational aggression in elementary, middle, and high school (Geiger et al., 2004; Leff, Waasdorp, & Crick, 2010; Merrell, Buchanan, & Tran, 2006; Nixon & Werner, 2010; Splett, Maras, & Brooks, 2015). Arguing that relational aggression is an individual and social problem, some have even suggested that college and university resources should be used to create intervention and prevention programs for relational aggression in emerging adulthood (e.g., Dahlen, Czar, Prather, & Dyess, 2013). However, research suggests that developed programs have been largely ineffective; prevention and intervention efforts often have not reduced targeted behaviors (relational aggression and relational victimization). A review of 9 frequently-researched programs concluded that none met criteria for being “efficacious” (Leff et al., 2010).

Evaluating available research on relational aggression, it seems that the failure to develop successful prevention program might be explained by the possibility that the assumptions underlying these programs are not supported by research. More specifically, relational aggression may be a normative behavior with adaptive functions at certain levels, rather than an individual or social problem requiring, and benefiting from, universal prevention efforts.
Theoretical Considerations

At present, the existing body of research appears insufficient for the classification of relational aggression as an individual and social problem; inconsistencies and unexpected associations are found throughout the literature. If the only a priori assumption is that published research findings are valid, the scientific method asserts that alternate interpretations of the same data should be considered. However, dominant theoretical perspectives provide little guidance or insight regarding possible alternatives. As noted by Heilbron & Prinstein, “empirical work on [relational aggression] may have outpaced the development of theory” (2008, p.177). Additional theory development may allow for explorations of other interpretations of available research findings, help move empirical work forward, and refine our understanding of relational aggression.

Theoretical origins of the construct of relational aggression. As discussed earlier, the construct of “relational aggression” was initially introduced as the previously overlooked female-typical form of aggression. Thus, the initial theoretical conceptualizations of relational aggression were grounded in anticipated gender differences. These conceptual frameworks focused on explaining why females theoretically utilize more relational aggression than males and why males utilize more physical aggression than females. Relational aggression was positioned, implicitly, as a female-specific manifestation of the same underlying phenomenon represented by physical aggression in males. Given this presumed association to physical aggression, relational aggression was framed as a pathological behavior.

Bjorkqvist and colleagues (1992, 1994) explained anticipated gender differences using learning theory and a theoretical principle termed the “cost-effect ratio.” Applying
the cost-effect ratio, they proposed that individuals utilize the aggression strategy that simultaneously maximizes harm to the victim (i.e., effect) and minimizes risk or damage to the self (i.e., cost). According to this theory, at a certain developmental level, most individuals learn to avoid physical aggression due to potential risk. However, females theoretically avoid physical harm strategies much earlier than males, as they perceive earlier, additional risk associated with physical strategies due to learning experiences related to female physical weakness (as compared to males) and gender-specific social norms. According to this theoretical perspective, females would generally prefer indirect aggression strategies throughout most of development, while males would utilize physical aggression until the effectiveness of this strategy is overwhelmed by the costs (Bjorkqvist et al., 1992; Bjorkqvist, Osterman, & Lagerspetz, 1994).

Crick and Grotpeter offered an alternative theoretical conceptualization of relational aggression (1995). Similar to Bjorkqvist et al. (1993), this approach focused on gender differences but differed noticeably from the previously described theory in proposed aggression selection strategy (Crick and Grotpeter, 1995). Ignoring costs and benefits, Crick and Grotpeter suggested, instead, that the guiding goal of aggressive behavior is to maximize damage to the intended victim by undermining the victim’s core values or priorities. Citing pre-existing research, they argued that relational values differ by gender; relationships and feelings of inclusion are priorities of females, while social hierarchies and dominance are priorities for males (Block, 1983). And so, physical aggression would be utilized more frequently by males, as it more effectively damages male priorities, while aggression strategies affecting relationships, termed “relational
aggression,” would be utilized more frequently by females, as it more effectively damages female priorities (Crick and Grotpeter, 1995).

Despite conceptual differences between these two theoretical frameworks, both predict that males will report and exhibit more physical aggression than females, and females will report and exhibit more relational aggression than males, particularly in earlier stages of development. However, as previously discussed, anticipated gender differences have not been fully supported by subsequent research findings. While males do consistently exhibit higher levels of physical aggression, results of meta-analyses, including a full range of ages and developmental stages, suggest that relational aggression is generally equivalent across genders (Archer, 2004; Card, et al., 2008).

Available evidence suggests that relational aggression is not the female-typical counterpart to the male-typical aggression. Instead, relational aggression appears to be a previously overlooked form of aggression exhibited by both males and females. Initial theoretical frameworks cannot accommodate these findings. However, little attention has been given to revising and updating theory (Heilbron & Prinstein, 2008). The lack of attention to theory has significant implications in terms of the structure and development of research in this area.

**Dominant contemporary theories.** Initial gender-associated theories of relational aggression have not been supported by research. However, subsequent studies often fail to include any discussion of theory or theoretical context (Heilbron & Prinstein, 2008). A review of the literature suggests that in lieu of theory development specific to relational aggression, the theoretical frameworks favored in overt aggression and violence research are often utilized. Social cognitive learning theories and developmental
psychopathology perspectives provide the conceptual model for the majority of relational aggression research (Crain, Finch, & Foster, 2005; Murray-Close et al., 2016). Both of these approaches are integrative, multi-faceted theoretical models, the details of which do not need to be reviewed for current purposes (for thorough overview of these models see Anderson and Bushman, 2002; Cichetti and Toth, 2009). What is most relevant are the assumptions that underlie these models and the empirical approaches favored by researchers espousing these theoretical perspectives.

Social cognitive learning theories operate on the a priori assumption that aggression is pathological and maladaptive, a phenomenon necessitating prevention (Ferguson & Dyck, 2012). As such, “aggression research [from a social cognitive learning perspective] focuses on discovering what biological, environmental, psychological, and social factors influence aggressive behavior, and on how to use these discoveries to reduce unwarranted aggression” (Anderson & Bushman, 2002, p. 34).

Similarly, developmental psychopathology perspectives often frame aggression as a pathological outcome of developmental processes, stressful life experiences, and vulnerabilities (Ellis et al., 2011).

These theoretical perspectives have impacted the focus of research. The various functions of relational aggression are rarely considered. Since relational aggression is assumed to be pathological, adaptive and non-pathological conceptualizations and associated factors are rarely explored (Ferguson & Dyck, 2012). Theoretical perspectives also impact decisions related to analyses. Research conducted from a social cognitive or developmental psychopathology approach often conceptualizes aggression as the predictor of pathology and/or maladaptive outcomes. So, relational aggression often
treated as the independent variable without clear rationale (Dahlen et al., 2013). Also, linear models are most frequently utilized for analyses: the lowest levels of relational aggression are expected to be associated with the lowest levels of maladaptive correlates and/or pathology, and the highest levels of relational aggression are expected to be associated with the highest levels of maladaptive correlates and/or pathology, with steady increases in between lowest and highest levels. Again, there is often a lack of clear rationale for why this model is expected (Ferguson & Dyck, 2012).

While relational aggression from social cognitive and developmental perspectives is most commonly researched and framed as pathological, it is important to note that there are some approaches to developmental psychopathology that consider both the adaptive and maladaptive sides of behavior (Cichetti & Toth, 2009). However, even these approaches utilize linear analyses. Linear associations between relational aggression and both pathological and adaptive features are most commonly explored from this perspective.

**Alternative theoretical perspectives.** One of the most noteworthy challenges to an exclusively pathological conceptualization of relational aggression is that relational aggression is commonly utilized and widespread; it is not statistically atypical (Crick, Casas, & Nelson, 2002; Lento-Zwolinski, 2007; Xie, Cairns, & Cairns, 2002). Furthermore, expected linear associations with psychological distress and/or maladaptive factors have not been consistently supported. Adaptive associations, unexpected by dominant theoretical perspectives, have also been found (Banny, Heilbron, & Prinstein, 2011; Heilbron and Prinstein, 2008). Dominant theories based in assumptions regarding the pathological nature of relational aggression cannot accommodate these empirical
findings. Alternative theoretical perspectives and conceptual models are needed to bring organization and integration to existing literature and guide development of future research that facilitates more accurate and nuanced understanding of relational aggression.

Proposing a non-pathological conceptualization of relational aggression is not necessarily groundbreaking. A handful of researchers have previously challenged the assumption that relational aggression is globally pathological, citing the research that suggests there are both adaptive and maladaptive “sides” to relational aggression (Banny, Heilbron, & Prinstein, 2011; Bukowski & Abecassis, 2007; Hawley, et al., 2010; Little et al., 2003; Murray-Close et al., 2016; Prinstein & Heilbron, 2008; Xie, Cairns, & Cairns, 2002). However, less attention has been given to development of theory in which to contextualize, and further explore, these findings.

Evolutionary perspectives: resource-control theory. There is one notable alternative perspective being utilized in the relational aggression literature, an evolutionary psychology framework known as Resource-Control Theory (RCT) (Hawley, 1999). Unlike social cognitive and developmental models of relational aggression, evolutionary perspectives propose that, given the widespread nature of relational aggression, there is likely some adaptive value to this behavior (Hawley, 2003a). RCT posits that the adaptive value of relational aggression is evident when universal human needs and within-group competition for resources are taken into consideration (Hawley, Stump, & Ratliff, 2010). Within this context, “[relational] aggression may be associated with the competent pursuit of human need fulfillment” (Hawley, et al., 2010, pp.3).
RCT assumes that individuals need a variety of resources, both informational and material in nature, in order to survive (Hawley, 1999). Social groups facilitate access to resources than cannot be obtained individually. Therefore, affiliation and relatedness improves chances of survival. However, within groups, competition for resources also arises. For evolutionary reasons, social dominance within groups is desirable, as it improves the likelihood of accessing and securing needed resources. As such, the most competent and successful individuals, as predicted by RCT, are those who balance autonomy and relatedness, self and other, “getting ahead” and “getting along” (Hawley, 1999; Hawley, 2003a; Hawley, Shorey, & Alderman, 2009; Hawley et al., 2010; Stump, Ratliff, Wu, & Hawley, 2009).

According to RCT, there are two primary strategies for attaining the goals outlined above: prosocial strategies and coercive strategies (Hawley, 2009). Prosocial strategies involve cooperation and reciprocation with others, while coercive strategies involve threats, manipulation, and relational aggression (Hawley, 2009). Proponents of RCT predict that different configurations of prosocial and coercive strategies are related to distinct outcomes. Initial research findings have supported these predictions (Hawley et al., 2009).

More specifically, research suggests that there are five categories of controller-types (Hawley, Little, & Card, 2007). Coercive controllers utilize coercive strategies, including relational aggression, at much higher than average rates and utilize prosocial strategies at average or below average rates. Conversely, prosocial controllers utilize prosocial strategies at higher than average rates and utilize coercive strategies at average or lower than average rates. Non-controllers use both prosocial and coercive strategies at
lower than average rates, while *bistrategic controllers* utilize both prosocial and coercive strategies at higher than average rates. Lastly, *typical controllers*, the largest and most common group, are those who utilize both prosocial and coercive strategies at average levels.

Research supports RCT’s predictions that each of these subtypes are associated with distinct outcomes (Hawley, 1999; Hawley, 2003a; Hawley et al., 2009; Hawley et al., 2010; Stump et al., 2009). Both prosocial and coercive controllers are able to access material and informational resources but differ in regards to social outcomes. Prosocial controllers are highly socially competent, agreeable, and well liked, while coercive controllers are impulsive, lack social skills, and are viewed negatively by peers (Hawley 2003b; Hawley, Johnson, Mize, & McNamara, 2007). Non-controllers have, unfortunately, poor outcomes; they are unable to access resources, lack social skills, and are often ostracized and rejected by peers. And, typical controllers are found to be average in resource attainment, social skills, and social standing. Interestingly, bistrategic controllers, those who are both highly relationally aggressive and highly prosocial, are found to be most successful at obtaining and securing resources. Furthermore, despite exhibiting higher than average levels of relational aggression, research suggests that bistrategic controllers are socially skilled, extroverted, well-liked by peers, and morally perceptive (Hawley, 2003a, 2003b; Hawley et al., 2007).

Resource control theory and associated research challenges the dominant conceptualization of relational aggression as an individual and social problem. Studies rooted in RCT suggest that relational aggression is not inherently maladaptive and is most strongly linked to impaired social functioning when used at either high or low rates.
in the absence of prosocial strategies. Similarly, research rooted in RCT suggests that high rates of relational aggression are linked to social competence and adaptive outcomes when used in combination with prosocial strategies. These research findings offer a possible explanation for the inconsistencies and contradictions in the mainstream literature. Since the association between relational aggression and social functioning is non-linear and mediated by use of prosocial strategies, it makes sense that the results of linear analyses exploring relational aggression in the absence of prosocial factors would result in unreliable findings.

**Clinical perspectives: attachment theory.** While RCT provides a framework for understanding and exploring the relationship between relational aggression and social functioning, RCT is less informative regarding the relationship between relational aggression and emotional functioning, which remains ambiguous. Clinical theories and perspectives may be uniquely suited for developments in this area. Proponents of RCT recently highlighted attachment theory (Bowlby, 1969) as a clinical complement to their evolutionary psychology-informed theory (Hawley et al., 2009). Findings from the associated study suggest that there are attachment style correlates to the controller categories of interest to RCT researchers (Hawley et al., 2009). Attachment-based perspective may also have much to offer our understanding of the relationship between relational aggression and emotional functioning.

Attachment theory proposes that humans are born with biologically-based systems that promote both attachment to others (for survival purposes) and independent exploration of the environment (to gain individual competence and efficacy) (Bowlby, 1969, 1973, 1980). **Secure attachment** develops when an individual has relatively
consistent formative relational experiences that promote balance between closeness to others and independent exploration. On the other hand, insecure attachment or disorganized attachment develop when an individual has inconsistent, rejecting, or fear-inducing formative relational experiences that contribute to lack of balance between closeness and independence (Ainsworth et al., 1978; Main, 1990).

Attachment theory has been thoroughly developed over the years and has robust empirical support (Wallin, 2007). For current purposes, it is most relevant to focus on the aspects of attachment literature that inform a conceptualization of the association between relational aggression and psychological distress. Readers are referred to Wallin (2007) for a more comprehensive discussion of attachment theory and associated research.

Research suggests that there are connections between attachment style, level of functioning, and psychological well-being. Secure attachment is associated with successful social functioning, individual achievement, resilience, and emotional well-being (Wallin, 2007). On the other hand, insecure and disorganized styles are associated with social, emotional, and behavioral difficulty and dysfunction (Ainsworth et al., 1978; Moretti, Dasilva, & Holland, 2004; Wallin, 2007). Disorganized attachment is a particularly significant risk factor for psychological distress and dysfunction, while insecure attachment is significant but slightly less so (Wallin, 2007).

Secure attachment and healthy functioning requires the ability to balance needs of the self with the needs of others (Bukowski & Abecassis, 2007; Vansteenkiste & Ryan, 2013). From attachment-based perspectives, interpersonal conflict is necessary to preserve this balance. As noted by Wallin, “…the ability to recognize (and be recognized
by) an other as a separate subject, rather than an object emerges from the discovery that the other, and the relationship itself, can survive anger and conflict” (2007, p.111). As such, “episodes of disruption and repair are a vital part of learning to balance the needs for self-definition and relatedness” (Wallin, 2007, p. 111).

Similarly, relational aggression “at appropriate times and in appropriate amounts” (p. 44) is thought to be adaptive and functional, facilitating balance between self and other by signaling distress, provoking relational engagement, and/or fulfilling autonomy needs (Moretti, Dasilva, & Holland, 2004, p. 44). Research suggests that individuals with disorganized and insecure attachment styles exhibit either higher than average or lower than average levels of anger and aggression (Ainsworth et al., 1978; Moretti et al., 2004). More specifically, those who tend to be overly focused on individual pursuits are highly aggressive in relationships, while those who are overly focused on relationships refrain from exhibiting aggression, turning anger on the self in a detrimental manner (Ainsworth et al., 1978). From an attachment perspective, relational aggression is best viewed on a continuum that ranges from passive (lower than average levels of relational aggression) to assertive (i.e., aggressive at average levels) to highly aggressive.

Individuals on either extreme end of the continuum are likely to struggle to balance self and other and are, therefore, more likely to experience psychological distress than those falling in the middle of this continuum.

Conclusions. Initial gender-related theories of relational aggression have not been supported by research. In lieu of focused theory development, most relational aggression researcher has been based in broad social cognitive and developmental psychopathology frameworks that are used to explore a wide-variety of problematic,
undesirable, and antisocial behaviors, including physical aggression. These perspectives have been applied in a manner that suggests relational aggression is assumed to be an individual and social problem. Alternative conceptualizations of relational aggression have been underexplored, despite a wide-variety of research findings that are unexpected and inconsistent with dominant perspectives.

Resource control theory (RCT) offers a rare alternative perspective on relational aggression. By considering the theoretically universal human need for both social connectedness and social dominance, RCT accommodates and explains the suggested connection between relational aggression and both adaptive outcomes and positive social functioning found throughout the literature. Initial research efforts have supported RCT predictions related to adaptive and maladaptive outcomes, demonstrating the value of developing and applying alternative theoretical frameworks in the study of relational aggression. While RCT provides a useful framework for exploring the relationship between relational aggression and social functioning, RCT is less illuminating regarding the relationship between relational aggression and emotional functioning.

On the other hand, clinical theories, such as attachment theory, may be uniquely suited for conceptualizing the relationship between relational aggression and psychological distress. Similar to RCT, attachment theory offers a bottom-up perspective that considers the ways in which relational aggression may help individuals fulfill universal human needs (Stump et al., 2009). From an attachment perspective, relational aggression is best conceptualized along a spectrum that ranges from passive (significantly lower than average relational aggression) to assertive (average relational aggression) to aggressive (significantly higher than average relational aggression). Individuals on either
extreme end of the continuum are likely to struggle to maintain the universal human need to balance self and other and are, therefore, more likely to experience psychological distress than those falling in the middle of this continuum. Attachment theory suggests a more normative conceptualization of relational aggression and predicts a curvilinear relationship between relational aggression and psychological distress that has yet to be tested directly.

**Statement of the Problem and Purpose of the Study**

Relational aggression is commonly conceptualized as an unequivocal individual and social problem. As such, linear statistical models are most frequently utilized to evaluate the relationship between relational aggression and psychological distress. Linear models predict that the lowest levels of relational aggression will be associated with the lowest levels of psychological distress and that the highest levels of relational aggression will be associated with the highest levels of psychological distress (with a relatively steady increase in-between). Notably inconsistent results have been found across studies using linear approaches. Possible explanations for these inconsistencies have been generally underexplored. Despite ambiguous research findings, relational aggression continues to be conceptualized as pathological. Prevention programs, justified by this widespread conceptualization, are largely ineffective.

Alternative theoretical and conceptual perspectives suggest that relational aggression may, at certain levels, be more normative and adaptive than suggested by dominant models. Attachment theory, in particular, proposes that relational aggression is best represented by a continuum ranging from passive (no relational aggression or significantly lower than average relational aggression) to assertive (average/normative
levels of relational aggression) to aggressive (significantly higher than average levels of relational aggression. Unlike dominant perspectives, attachment theory predicts that both ends of this continuum (passive and aggressive) will be associated with higher levels of psychological distress than the middle of this continuum. Therefore, a curvilinear model, rather than a linear model, would better represent the relationship between relational aggression and distress. A curvilinear relationship would explain inconsistencies currently found in this area.

The proposed curvilinear relationship between relational aggression and psychological distress and well-being has not been tested directly and remains hypothetical. The proposed project intends to address this gap in the literature by testing hypotheses directly related to this reconceptualization. More specifically, a possible curvilinear relationship (quadratic with negative slope) between relational aggression and psychological distress, anxiety, and psychological well-being will be explored and empirically evaluated in comparison to the typical linear model.

**Hypotheses**

1. The relationship between self-reported relational aggression and self-reported psychological distress will be curvilinear (quadratic with negative slope).
   
   1a. A curvilinear model of the relationship between self-reported relational aggression and self-reported psychological distress will better fit the data than a linear model.

2. The relationship between self-reported relational aggression and self-reported anxiety will be curvilinear (quadratic with negative slope).
2a. A curvilinear model of the relationship between self-reported relational aggression and self-reported anxiety will better fit the data than a linear model.

**Descriptive & Exploratory Questions**

1. What is the average amount of relational aggression in this sample? Examining responses, how might the average amount of relational aggression be described qualitatively?

2. Is there a significant difference between the amount of relational aggression reported by males and females in this sample?

3. Is there a relationship between relational aggression and well-being?
Chapter Two

Method

Participants

Recruitment. Participants were enrolled in an introductory psychology course at a large university in a city in the Midwest region of the United States. Participants were recruited using the Psychology Department’s web-based human subject management system (Sona Systems) and were compensated with credits that satisfy course requirements. Attempts were made to recruit approximately equal numbers of male and female participants. Other than being an undergraduate student, additional inclusion criteria were that participants needed to be fluent in English. This inclusion criterion was necessary for the design of the study.

Sample Characteristics. Two hundred fourteen students participated in the study. All but one participant completed the questionnaires in entirety. This participant provided incomplete data, so they were not included in the analyzed sample.

The mean age of the remaining 213 participants was 19.87. However, due to the representation of non-traditional students in the university population, the age of participants ranged from 18 to 63. Since research suggests that the nature of relational aggression differs depending on developmental period, it was decided to focus on participants within a singular period of development: emerging adulthood, which has been defined as the period of development that spans from 18 to 29 (Arnett & Tanner, 2005). Four participants whose ages exceeded the emerging adulthood age range were omitted from analyses.

Of the 209 emerging adult participants included in subsequent analyses, 117
(56%) participants identified as female and 92 (44%) identified as male. The mean age of the remaining 209 participants was 19.25 (SD = 1.42), ranging from 18 to 29. See Table 2 for a summary of participant characteristics by gender.

### Table 2

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>40</td>
<td>19</td>
<td>59</td>
</tr>
<tr>
<td>19</td>
<td>55</td>
<td>39</td>
<td>94</td>
</tr>
<tr>
<td>20</td>
<td>17</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>22</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>117</td>
<td>92</td>
<td>209</td>
</tr>
</tbody>
</table>

69.4% of participants were freshman, 21.5% of participants were sophomores, 8.1% of students were juniors, and only 1% of participants were seniors. See Table 3 for summary of school year by gender.

### Table 3

<table>
<thead>
<tr>
<th>School Year</th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>85</td>
<td>25</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Male</td>
<td>60</td>
<td>20</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>145</td>
<td>45</td>
<td>17</td>
<td>2</td>
</tr>
</tbody>
</table>

(69.4%) (21.5%) (8.1%) (1.2%) In regards to race and/or ethnicity, 64.6% of the sample identified as White or Caucasian, 24.4% identified as Black or African American, 4.3% identified as Asian or Pacific Islander, 3.8% identified as Hispanic, and 2.9% identified as “Other.” This
distribution is relatively representative of the university population. See Table 4 for summary of race and/or ethnicity by gender.

Table 4

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>White or Caucasian</th>
<th>Black or African American</th>
<th>Asian or Pacific Islander</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>72</td>
<td>34</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Male</td>
<td>63</td>
<td>17</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
<td>51</td>
<td>9</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

(Measures)

Indirect aggression scale – aggressor version (Appendix A). Participants’ use of relational aggression toward others was assessed using the Indirect Aggression Scale (IAS-A; Forrest, Eatough, & Shevlin, 2005). The IAS-A is a self-report measure containing 25 items that were specifically designed to represent the behavioral manifestations of indirect and relational aggression commonly exhibited in adulthood. Brief instructions introduce the measure, directing respondents to indicate how often he or she has used each of these behaviors “against another person” in the last 12 months. Response options are provided on a 5-point Likert scale, where 1 = never, 2 = once or twice, 3 = sometimes, 4 = often, 5 = regularly. Total indirect aggression scores range from 25 to 125, with higher score indicating more relational aggression. A total indirect aggression score, derived from all of the items, was utilized in the current study (α = .89).

The IAS-A was developed via a multiple step construction and validation process (Forrest et al., 2005). A large 56-item pool was generated through a series of qualitative interviews about indirect aggression experiences with adults ranging from ages 19 to 42.
Removing items with obvious conceptual overlap, the 35 remaining items were evaluated using exploratory factor analysis. Three factors were identified, altogether accounting for 35.89% of the cumulative variation: use of malicious humor (14.83% of the covariation), social exclusionary behaviors (12.25% of the covariation), and guilt induction techniques (8.81% of the covariation). Items lacking validity were removed from the measure.

Internal consistency was explored on remaining items via item-total correlations. Only items with acceptable item-total correlations (between 0.25 and 0.75) were retained, resulting in the final 25-item indirect aggression scale utilized in the current study.

The final 25-item measure was re-evaluated in a follow-up study (Anguiano-Carrasso & Vigil-Colet, 2011). Results of this study suggest a 1-factor structure that accounts for 42.34% of the variance (α = .88). Both scree tests from an exploratory factor analysis and eigenvalues obtained from parallel analysis support the 1-factor model; eigenvalues of second factor were below those expected by chance (Anguiano-Carrasso & Vigil-Colet, 2011). Factor loadings were all greater than .40 and item-total correlations all fell between .30 and .60. Taken together, evidence suggests that the IAS-A can be used to obtain a cumulative indirect aggression score. The mean total score on the emerging adult sample used for validation was 35.89 (SD = 8.63).

**Young adult conflict resolution and aggression scale – self report (Appendix B).** Participants’ use of relational aggression towards others was also assessed using the Young Adult Conflict Resolution and Aggression Scale – Self Report Version (YACRA-S). The YACRA-S was used in addition to the IAS-A due to this measure’s inclusion of less severe forms of relational aggression, as well as internet-based relational aggression, which are not assessed by the IAS-A. The YACRA-S (Rebesco et al., 2012) is a self-
report instrument that contains 16 items which assess for prosocial behavior, relational aggression, and physical aggression. Brief instructions ask participants how often they have reacted to others in the ways indicated by the items. Response options are provided on 5-point Likert-type scale ranging from “1” (Never) to “5” (Always). Each response option also contains a more detailed explanation/description of the response category (e.g., Never, “I have not done this even once.”).

The YACRA-S was developed via a multi-step process. An initial 49-item pool was created through review of the literature and focus group discussion. This large item pool was initially refined using Rasch methods (Rasch, 1980; Rebesco, 2011; Wright, 1996). Then, a principal components analysis was conducted on the remaining 16 items, providing evidence for a 2-factor structure. Factor 1 (Relational Aggression) accounted for 35.53 of the total variance and Factor 2 (Overt Aggression) accounted for 14.68% of the total variance (Rebesco et al., 2012). See Rebesco (2011) and Rebesco et al. (2012) for a detailed discussion of procedures used in developing the YACRA-S.

Participants in the current study were administered all 16 items on the YACRA-S. However, only the 9 items (items 5-13) on the Relational Aggression factor of the YACRA-S were used in the current study (α = .78). The possible range of total relational aggression scores is 9 to 45, with higher scores indicating more relational aggression.

**Mental health inventory (Appendix C).** Participants’ levels of psychological distress, anxiety, and psychological well-being were assessed using the Mental Health Inventory (MHI; Veit & Ware, 1983). The MHI is a self-report measure. Brief instructions inform participants to endorse the response that best represents how s/he has been feeling and/or functioning during the past month. Response options are provided on
a 6-point Likert-style response scale. The specific response choices vary depending on item content. The original version of the MHI contains 38 items. However, 2 items pertaining to suicide were removed for the current study due to Institutional Review Board concerns.

Cross-validation and combined sites analyses were initially conducted when this measure was introduced. Initial factor analyses suggested a hierarchical factor structure, including a single summary score, two global scales (without overlapping items), and 6 subscales (without overlapping items) (Veit & Ware, 1983). The Mental Health Index is a single summary score that describes an individual’s general mental health status based on all 38 items. There are also two global scales, Psychological Distress (typically 24 items; 22 items with after suicide items were removed) and Psychological Well-being (14 items). Lastly, there are 3 distinct psychological distress subscales (Anxiety, Depression, and Loss of Behavioral/Emotional Control), and 3 distinct psychological well-being subscales (General Positive Affect, Emotional Ties, and Life Satisfaction).

The MHI has been found to be strongly correlated with several other mental health assessment instruments (Sherbourne, Hays, Ordway, DiMatteo and Kravitz, 1992; Veit and Ware, 1983). Furthermore, reliability was assessed in a large national study involving almost 4,000 participants (Brook et al., 1984). 2-year stability coefficient ranged from 0.54-0.69, α = .96.

The two global scales, Psychological Distress and Psychological Well-being, and the anxiety subscale were used in current study. Psychological Distress was measured without the two removed suicide-related items. Scoring was completed so that lower scores equate to less distress, well-being, and anxiety and higher scores equate to more
distress, well-being, and anxiety. Scoring procedures for these scales are detailed in the results section. In the current sample (MHI without 2 suicide items), Cronbach’s alpha for Psychological Distress was .94, Cronbach’s alpha for Psychological Well-being was .91, and Cronbach’s alpha for the anxiety subscale was .87.

**Administration Procedures**

Approval was gained from the University of Toledo’s Social, Behavioral, and Educational Institutional Review Board prior to commencement of the study (IRB #0000200005). Participants were recruited through the Psychology Department’s Sona System program, a web-based human subject management system. Participants signed up for pre-determined group administration times through Sona System. Each timeslot accommodated a maximum of 20 participants. Consent forms were signed by each participant at the beginning of every administration session.

Procedures for all participants were the same. Participants were brought into the same room but were asked to not sit directly next to each other. They were each provided a paper packet containing the YACRA-S, the MHI, the IAS-A, and a demographics questionnaire (See Appendix D). The measures were presented to all participants in the same order. After being handed the questionnaire packet, participants were given oral instruction by the student researcher. The instructions were also provided in written form (See Appendix E). Participants were then instructed to begin and asked to remain silent throughout the session.

Completion times ranged from 20-45 minutes. There was no time limit for completion. After completion, participants were handed a written debriefing statement (see Appendix F), asked not to discuss the study with others, and given the opportunity to
ask any questions they might have. Per Sona system requirements, participants were required to attend the session in order to receive course credit. However, they had the option of ending their participation at any time, without penalty. As previously referenced, all but one of the participants completed the packet with minimal item response omissions.
Chapter Three

Results

Scoring Procedures and Measure Descriptives

**MHI: psychological distress.** Psychological distress scores were obtained using the following 22 items on the modified version of the MHI used in the current study: 2, 3, 8, 9, 11, 13, 14, 15, 16, 18, 19, 20, 23, 24, 26, 27, 28, 30, 31, 33, 34, and 36. All items were reversed scored except for 8, 14, and 18. Then, item raw scores were summed to create a total psychological distress score, with higher scores corresponding to higher levels of psychological distress. Total possible scores range from 22 to 132. In the current sample, the Mean score was 64.46 (SD = 17.31, range = 33 – 113).

A Kolmogorov-Smirnov test for normality was also conducted on psychological distress scores. Results suggest that the distribution of these scores does not deviate significantly from normal, $D(208) = .06, p = .20$. So, no transformation was needed.

**MHI: anxiety subscale.** Anxiety scores were obtained using the following 9 items on the modified version of the MHI used in the current study: 3, 11, 13, 15, 24, 27, 30, 31, and 33. All items were reversed scored. Then, item raw scores were summed to create a total anxiety score, with higher scores corresponding to higher levels of anxiety. Total possible scores range from 9 to 54. In the current sample, the Mean score was 28.05 (SD = 7.82, range = 12 - 49).

A Kolmogorov-Smirnov test for normality was also conducted on anxiety scores. Results suggest that the distribution of these scores deviated significantly from normal, $D(208) = .08, p = .00$. So, an LN transformation was conducted in order to meet normality assumption. Results of the subsequent Kolmogorov-Smirnov test was not
significant, suggest normality was sufficiently address by the transformation $D(208) = .055$, $p = .20$.

**MHI: psychological well-being.** Psychological well-being scores were obtained using the following 14 items on the modified version of the MHI used in the current study: 1, 4, 5, 6, 7, 10, 12, 17, 21, 22, 25, 29, 32, and 35. All items were reversed scored. Then, item raw scores were summed to create a total psychological well-being score, with higher scores corresponding to greater psychological well-being. Total possible scores range from 14 to 84. In the current sample, the Mean score was 50.68 (SD = 11.46, range = 22-74).

A Kolmogorov-Smirnov test for normality was also conducted on psychological well-being scores. Results suggest that the distribution of these scores does not deviate significantly from normal, $D(208) = .052$, $p = .20$. So, no transformation was needed.

**YACRA-S.** There are 9 items on the YACRA-S that provide the relational aggression scale score (Items 5, 6, 7, 8, 9, 10, 11, 12, and 13). Item raw scores were summed to create a cumulative relational aggression score. Total possible scores on the YACRA-S relational aggression scale range from 9 to 45. A score of 9 would indicate that the respondent reported no use of relational aggression. The Mean score obtained in the current sample was 18.89 (SD = 5.43, range = 9-38). The minimum score, suggesting no relational aggression, was endorsed by 2 respondents. The remaining respondents endorsed some degree of relational aggression. See Table 5 for item-level descriptive statistics, displayed in order from most frequently endorsed to least frequently endorsed.

The mean YACRA-S relational aggression score of female participant was 19.20 (SD = 5.19), while the mean score of male participants was 18.51 (SD = 5.72). To assess
for gender differences in relational aggression, as measured by the YACRA-S, an
independent samples t-test was conducted. No differences were found between female
and male relational aggression scores on the YACRA-S, \( t(205) = .91, p = .37 \).

**Table 5**

*Descriptive Statistics for YACRA-S Items*

<table>
<thead>
<tr>
<th>Young Adult Conflict Resolution and Aggression Scale</th>
<th>Likert-type response scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignored their phone calls, text, or emails</td>
<td>1 = never, 2 = almost never, 3 = sometimes, 4 = often, 5 = almost always</td>
</tr>
<tr>
<td>Pretended you didn’t care about them at all</td>
<td>1-5</td>
</tr>
<tr>
<td>Made negative comments about them to mutual friends</td>
<td>1-5</td>
</tr>
<tr>
<td>Purposefully excluded them from activities</td>
<td>1-5</td>
</tr>
<tr>
<td>Purposefully excluded them from conversations</td>
<td>1-5</td>
</tr>
<tr>
<td>Encouraged others to spend time with you instead of them</td>
<td>1-5</td>
</tr>
<tr>
<td>“Un-friended” or blocked them on social networking sites</td>
<td>1-5</td>
</tr>
<tr>
<td>Posted negative comments about them on social networking sites</td>
<td>1-4</td>
</tr>
<tr>
<td>Told others something they told you privately</td>
<td>1-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignored their phone calls, text, or emails</td>
<td>1-5</td>
<td>2.9</td>
<td>1.01</td>
</tr>
<tr>
<td>Pretended you didn’t care about them at all</td>
<td>1-5</td>
<td>2.31</td>
<td>1.08</td>
</tr>
<tr>
<td>Made negative comments about them to mutual friends</td>
<td>1-5</td>
<td>2.28</td>
<td>1.05</td>
</tr>
<tr>
<td>Purposefully excluded them from activities</td>
<td>1-5</td>
<td>2.13</td>
<td>1.00</td>
</tr>
<tr>
<td>Purposefully excluded them from conversations</td>
<td>1-5</td>
<td>2.05</td>
<td>.92</td>
</tr>
<tr>
<td>Encouraged others to spend time with you instead of them</td>
<td>1-5</td>
<td>2.01</td>
<td>1.08</td>
</tr>
<tr>
<td>“Un-friended” or blocked them on social networking sites</td>
<td>1-5</td>
<td>1.96</td>
<td>1.13</td>
</tr>
<tr>
<td>Posted negative comments about them on social networking sites</td>
<td>1-4</td>
<td>1.5</td>
<td>.81</td>
</tr>
<tr>
<td>Told others something they told you privately</td>
<td>1-5</td>
<td>1.17</td>
<td>.96</td>
</tr>
</tbody>
</table>

**IAS-A.** There are 25 items on the IAS-A. The raw scores of all items are
summed to create a total relational aggression score. Possible scores range from 25 to
125. A score of 25 would indicate that the participant reported no use of relational
aggression. The mean score of this sample was 36.54 (SD = 9.70, range = 25 – 72). The
minimum score, suggesting no relational aggression, was endorsed by 2 respondents.
The remaining respondents endorsed some degree of relational aggression on the IAS-A.

To assess for gender differences, an independent samples t-test was conducted. A
significant difference was found between females (mean = 35.28, SD = 9.05) and males
(mean = 38.16, SD = 10.30), \( t(199) = -2.10, p = .04 \), with males endorsing more relational
aggression on the IAS-A than females. Effect sizes of this difference were calculated,
Cohen’s $d = -0.30$, $r = -0.15$. These effect sizes suggest that differences by gender on the IAS-A are relatively small. See Table 6 for item-level descriptive statistics by gender.

**Table 6**

*Descriptive Statistics for the IAS-A by Gender*

<table>
<thead>
<tr>
<th>Item (Response Range)</th>
<th>Indirect Aggression Scale</th>
<th>Male M (SD)</th>
<th>Female M (SD)</th>
<th>Total M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likert-type response scale</td>
<td>1 = never, 2 = once or twice, 3 = sometimes, 4 = often, 5 = regularly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used my relationship with them to try and get them to change a decision (1-5)</td>
<td></td>
<td>2.08(1.10)</td>
<td>1.86(.93)</td>
<td>1.98(1.01)</td>
</tr>
<tr>
<td>Used sarcasm to insult them (1-5)</td>
<td></td>
<td>2.75(1.23)</td>
<td>2.50(1.14)</td>
<td>2.62(1.18)</td>
</tr>
<tr>
<td>Tried to influence them by making them feel guilty (1-5)</td>
<td></td>
<td>2.10(1.09)</td>
<td>1.88(.97)</td>
<td>2 (1.02)</td>
</tr>
<tr>
<td>Withheld information from them that the rest of the group is let in on (1-5)</td>
<td></td>
<td>1.64(.91)</td>
<td>1.53(.79)</td>
<td>1.58 (.85)</td>
</tr>
<tr>
<td>Purposefully left them out of activities (1-4)</td>
<td></td>
<td>1.42(.64)</td>
<td>1.38(.65)</td>
<td>1.41(.64)</td>
</tr>
<tr>
<td>Made other people not talk to them (1-3)</td>
<td></td>
<td>1.17(.44)</td>
<td>1.05(.26)</td>
<td>1.1(.36)</td>
</tr>
<tr>
<td>Excluded them from a group (1-4)</td>
<td></td>
<td>1.32(.62)</td>
<td>1.27(.58)</td>
<td>1.3(.62)</td>
</tr>
<tr>
<td>Used their feelings to coerce them (1-4)</td>
<td></td>
<td>1.57(.74)</td>
<td>1.27(.57)</td>
<td>1.41(.68)</td>
</tr>
<tr>
<td>Made negative comments about their physical appearance to mutual friends (1-4)</td>
<td></td>
<td>1.45(.74)</td>
<td>1.33(.67)</td>
<td>1.4(.73)</td>
</tr>
<tr>
<td>Used private jokes to exclude them (1-4)</td>
<td></td>
<td>1.51(.80)</td>
<td>1.29(.62)</td>
<td>1.41(.74)</td>
</tr>
<tr>
<td>Used emotional blackmail on them (1-3)</td>
<td></td>
<td>1.07(.33)</td>
<td>1.12(.42)</td>
<td>1.11(.40)</td>
</tr>
<tr>
<td>Imitated them in front of others (1-5)</td>
<td></td>
<td>1.60(.90)</td>
<td>1.42(.81)</td>
<td>1.51(.86)</td>
</tr>
<tr>
<td>Spread rumors about them (1-4)</td>
<td></td>
<td>1.11(.49)</td>
<td>1.13(.47)</td>
<td>1.13(.49)</td>
</tr>
<tr>
<td>Played a nasty practical joke on them (1-4)</td>
<td></td>
<td>1.18(.52)</td>
<td>1.08(.40)</td>
<td>1.14(.49)</td>
</tr>
<tr>
<td>Done something to try an make them look stupid in front of others (1-5)</td>
<td></td>
<td>1.34(.74)</td>
<td>1.23(.58)</td>
<td>1.31(.70)</td>
</tr>
<tr>
<td>Pretended to be hurt and/or angry with him/her to make him/her feel bad (1-5)</td>
<td></td>
<td>1.67(.91)</td>
<td>1.73(1.0)</td>
<td>1.71(.95)</td>
</tr>
<tr>
<td>Made them feel that they don’t fit in (1-4)</td>
<td></td>
<td>1.24(.50)</td>
<td>1.15(.47)</td>
<td>1.21(.53)</td>
</tr>
<tr>
<td>Intentionally embarrassed them around others (1-5)</td>
<td></td>
<td>1.38(.73)</td>
<td>1.09(.34)</td>
<td>1.23(.60)</td>
</tr>
<tr>
<td>Stopped talking to them (1-5)</td>
<td></td>
<td>2.07(1.10)</td>
<td>2.31(1.23)</td>
<td>2.21(1.17)</td>
</tr>
<tr>
<td>Put undue pressure on them (1-4)</td>
<td></td>
<td>1.41(.75)</td>
<td>1.27(.59)</td>
<td>1.34(.68)</td>
</tr>
<tr>
<td>Left them out of conversations on purpose (1-5)</td>
<td></td>
<td>1.42(.74)</td>
<td>1.52(88)</td>
<td>1.49(.83)</td>
</tr>
<tr>
<td>Made fun of them in public (1-5)</td>
<td></td>
<td>1.35(.73)</td>
<td>1.14(.44)</td>
<td>1.25(.61)</td>
</tr>
<tr>
<td>Called them names (1-5)</td>
<td></td>
<td>1.72(.97)</td>
<td>1.45(.81)</td>
<td>1.57(.89)</td>
</tr>
<tr>
<td>Criticized them in public (1-5)</td>
<td></td>
<td>1.33(.69)</td>
<td>1.14(.40)</td>
<td>1.23(.56)</td>
</tr>
<tr>
<td>Turned other people against them (1-4)</td>
<td></td>
<td>1.24(.60)</td>
<td>1.13(.4)</td>
<td>1.2(.53)</td>
</tr>
</tbody>
</table>
Creating the Composite Relational Aggression Score

Prior to conducting primary analyses, a composite relational aggression score was created for each participant. YACRA-S and IAS-A raw scores were converted to z-scores. The z-score conversions were then added to create one composite score per participant. Results of the Kolmogorov-Smirnov test suggested that composite relational aggression scores were significantly non-normal, $D(199) = .09$, $p = .00$. Given the assumption of normality for the planned analyses, a transformation was completed. A constant value of 3 was added to each of the composite z-scores in order to obtain positive data values. Then, a square root transformation was conducted. Results of the Kolmogorov-Smirnov test on the transformed score were not significant, suggesting that this transformation sufficiently addressed the issue of normality, $D(199) = .04$, $p = .20$. The transformed relational aggression score was used for all subsequent analyses.

**Gender differences.** A t-test was conducted on transformed composite scores to explore possible gender differences in total relational aggression. The results were not statistically significant $t(197) = -.512$, $p = .61$. No gender differences were found in transformed composite relational aggression scores.

**Primary Analyses**

Primary analyses were conducted using SPSS 21. Using the methods outlined by Garson (2012), multiple steps were taken to assess which model (linear or quadratic) best explains the relationship between relational aggression and the three variables of interest: psychological distress, anxiety, and psychological well-being. Distinct analyses were conducted for each of the three variables (results presented separately below), but identical procedures were utilized.
First, as outlined above, normality was assessed and transformations were completed, when deemed necessary, in order to meet the normality assumptions of the planned analyses. In the instances in which transformations were completed, subsequent analyses were conducted on transformed variables. Then, simple correlations were performed to assess the relationship between relational aggression and all three variables of interest using traditional methods. Next, in order to assess the goodness-of-fit of both models of interest, the SPSS curve estimation function was utilized (Analyze -> Regression -> Curve Estimation). Linear and quadratic models were selected. The quadratic model represents the curvilinear relationship predicted by attachment theory, in which both high and low levels of relational aggression are associated with higher levels of psychological distress, and average levels of relational aggression are associated with lower levels of psychological distress (e.g., a bell curve is a quadratic model).

Relational aggression was entered as the independent variable in each of the curve estimation analyses and the associated variable of interest (psychological distress, anxiety, or psychological well-being) was entered as the dependent variable. Results of the curve estimation analyses provided information regarding the fit of both the linear and the quadratic models. However, curve estimation analyses do not inform questions regarding which model is the best fit. A best fit would be identified by determining which model has significantly smaller residuals. So, following the procedures outlined by Garson (2012), residual values were saved for each model and converted to absolute values. Finally, a paired samples t-test was conducted on the absolute values of residuals in order to determine which model was the best fit. Results are presented below.
**Psychological distress and relational aggression.** The procedures outlined above were utilized to determine whether a linear or quadratic model of the relationship between relational aggression and psychological distress is a better fit. A significant, but small, positive correlation was found between relational aggression and psychological distress, $r = .17, p = .01$. When curve estimation analyses were completed, both the linear and the quadratic models were found to be significant (Linear Model: $R^2 = .03$, $b_1 = 6.1$, $F[1, 196] = 6.14$, $p = .01$; Quadratic Model: $R^2 = .04$, $b_1 = 20.108$, $b_2 = -4.26$, $F[2, 195] = 3.66$, $p = .02$). See Figure 1 for a scatterplot of the data.

Given the small positive correlation previously found, the positive slope of the linear model was anticipated. However, contrary to expectations, the quadratic model had a negative slope ($b_2 = -4.26$). This means that higher and lower levels of relational aggression were associated with lower levels of psychological distress, while average levels of relational aggression were associated with higher levels of psychological distress. Possible explanations for this unanticipated finding will be explored in the discussion section.

Given that both models were significant, further analyses were conducted in order to determine which model is a better fit for the data. Residuals from both models were saved and transformed into absolute values. A paired samples $t$-test was then conducted on the transformed residuals. Results of the $t$-test were not significant, suggesting that neither of these models is a statistically significant better fit, $t(197) = .28$, $p = .78$. This indicates that both the linear and quadratic model are a statistically significant fit to the data examining the relationship between psychological distress and relational aggression, but that neither model is a better fit to the data than the other.
Follow-up analyses. Several follow-up analyses were conducted to further explore the relationship between relational aggression and psychological distress.

Analyses by race/ethnicity. Data was separated into two groups: white participants and non-white participants. Curve estimation analyses were conducted separately on these groups. Examining only white participants, no correlation was found between relational aggression and distress, $r = .10, p = .28$. Similarly, neither the linear nor the quadratic model was significant for white participants. On the other hand, examining only non-white participants, a significant medium positive correlation was found between relational aggression and distress, $r = .34, p = .00$. When curve estimation analyses were completed, both the linear and the quadratic models were found to be significant for non-white participants (Linear Model: $R^2 = .12, b_1 = 11.51, F[1, \ldots]$. 

Figure 1. Scatterplot illustrating the relationship between psychological distress and relational aggression.
66] = 8.81, p =.00; Quadratic Model: R Square = .12, b1 = 7.88, b2 = 1.05, F[2, 65] = 4.36, p =.02). Interestingly, not only was the quadratic model significant, but the slope was also positive, meaning that hypotheses were supported by non-white participant data. Lower and higher levels of relational aggression were associated with higher levels of distress, while mid-levels of relational aggression were associated with lower levels of distress.

Given that both models were significant for non-white participants, further analyses were conducted in order to determine which model is a better fit for the data. Residuals from both models were saved and transformed into absolute values. A paired samples t-test was then conducted on the transformed residuals. Results of the t-test were not significant, suggesting that neither of these models is a statistically significant better fit for non-white participants, t(67) =.45, p =.66.

Race/ethnicity as a moderator. Race/ethnicity was examined as a moderator of the relationship between relational aggression and distress by conducting a hierarchical multiple regression analysis. Relational aggression and race/ethnicity (white or non-white) were entered in the first step of the analysis. In the second step of the regression analysis, the interaction term between relational aggression and race/ethnicity was entered. The interaction term did not account for a significant proportion of the variance, suggesting that race/ethnicity does not significantly moderate the relationship between relational aggression and distress (ΔR² = .01, F (1, 194) = 3.04, p =.08.

Analyses by gender. Data was separated into two groups: male participants and female participants. None of the analyses conducted by gender were significant. There was no significant correlation between relational aggression and distress for either male
or female participant groups when separated. Neither linear nor curvilinear models were significant for either group.

*Gender as a moderator.* Gender was examined as a moderator of the relationship between relational aggression and distress by conducting a hierarchical multiple regression analysis. Relational aggression and gender were entered in the first step of the analysis. In the second step of the regression analysis, the interaction term between relational aggression and gender was entered. The interaction term did not account for a significant proportion of the variance, suggesting that gender does not significantly moderate the relationship between relational aggression and distress ($\Delta R^2 = .00, F(1, 194) = .03, p = .87$).

*Anxiety and relational aggression.* The previously outlined curvilinear regression procedures were utilized to determine whether a linear or quadratic model is a better fit to the association between relational aggression and anxiety. A significant, but small, positive correlation was found between anxiety and relational aggression, $r = .17, p = .02$. When curve estimation analyses were conducted, both the linear and the quadratic models were found to be significant (Linear Model: $R^2 = .03, b_1 = .098, F(1, 196) = 6.05, p = .02$; Quadratic Model: $R^2 = .03, b_1 = .28, b_2 = -.06, F[2, 195] = 3.42, p = .04$). See Figure 2 for a scatterplot of the data.

Given the small positive correlation previously found, the positive slope of the linear model was anticipated. However, contrary to expectations, the quadratic model had a negative slope ($b_2 = -.06$). This means that higher and lower levels of relational aggression were associated with *lower* levels of anxiety, while average levels of
relational aggression were associated with higher levels of anxiety. Possible explanations for this unanticipated finding will be explored in the discussion section.

Figure 2. Scatterplot illustrating the relationship between anxiety and relational aggression.

Given that both models were significant, further analyses were conducted in order to determine which model is a better fit to the data. Residuals from both models were saved and transformed into absolute values. A paired samples t-test was then conducted on the transformed residuals. Results of the t-test were not significant, suggesting that neither of these models is a statistically significant better fit, $t(197) = .57$, $p = .57$. This indicates that both the linear and quadratic model are a statistically significant fit to the data examining the relationship between anxiety and relational aggression, but that neither model is a better fit to the data than the other.
Follow-up analyses. Follow-up analyses were conducted to further explore the relationship between relational aggression and anxiety.

Analyses by race/ethnicity. Data was separated into two groups: white participants and non-white participants. Curve estimation analyses were conducted separately on these groups. Examining only white participants, no correlation was found between relational aggression and anxiety, $r = .14, p = .12$. Similarly, neither the linear nor the quadratic model were significant for white participants. On the other hand, examining only non-white participants, a significant positive correlation was found between relational aggression and anxiety, $r = .25, p = .04$. When curve estimation analyses were completed, the quadratic models was not significant, while the linear model was significant for non-white participants (Linear Model: R Square = .06, $b_1 = .13, F[1, 66] = 4.52, p = .04$; Quadratic Model: R Square = .06, $b_1 = -.01, b_2 = .18, F[2, 65] = 2.23, p = .12$).

Race/ethnicity as a moderator. Race/ethnicity was examined as a moderator of the relationship between relational aggression and anxiety by conducting a hierarchical multiple regression analysis. Relational aggression and race/ethnicity (white or non-white) were entered in the first step of the analysis. In the second step of the regression analysis, the interaction term between relational aggression and race/ethnicity was entered. The interaction term did not account for a significant proportion of the variance, suggesting that race/ethnicity does not significantly moderate the relationship between relational aggression and anxiety ($\Delta R^2 = .00, F(1, 194) = .50, p = .48$).

Analyses by gender. Data was separated into two groups: male participants and female participants. None of the analyses conducted by gender were significant. There
was no significant correlation between relational aggression and anxiety for either male or female participant groups when separated. Neither linear nor curvilinear models were significant for either group.

**Gender as a moderator.** Gender was examined as a moderator of the relationship between relational aggression and anxiety by conducting a hierarchical multiple regression analysis. Relational aggression and gender were entered in the first step of the analysis. In the second step of the regression analysis, the interaction term between relational aggression and gender was entered. The interaction term did not account for a significant proportion of the variance, suggesting that gender does not significantly moderate the relationship between relational aggression and anxiety ($\Delta R^2 = .00, F (1, 194) = .19, p = .66$).

**Psychological well-being and relational aggression.** Similar curvilinear regression analyses as those outlined above were conducted to examine the exploratory question regarding the relationship between well-being and relational aggression.

First, correlations were conducted to explore the data. There was a significant, but small, negative correlation between well-being and relational aggression, $r = -.15$, $p = .03$. When curve estimation analyses were completed, both the linear and quadratic models were found to be significant (Linear Model: $R^2 = .024$, $b_1 = -3.62$, $F[1, 196] = 4.79$, $p = .03$; Quadratic Model: $R^2 = .03$, $b_1 = -13.86$, $b_2 = 3.11$, $F[2, 195] = 3.10$, $p = .04$). See Figure 3 for a scatterplot of the data.
Given the small negative correlation previously found, the negative slope of the linear model was anticipated. However, surprisingly, the quadratic model had a positive slope ($b_2 = 3.11$). This means that higher and lower levels of relational aggression were associated with higher levels of well-being, while average levels of relational aggression were associated with lower levels of well-being. Possible explanations for this unanticipated finding will be explored in the discussion section.

Given that both models were significant, further analyses were conducted in order to determine which model is a better fit to the relationship between relational aggression and well-being. Residuals from both models were saved and transformed into absolute values. A paired samples $t$-test was then conducted on the transformed residuals. Results of the $t$-test were not significant, $t(197) =1.47$, $p =.14$. This indicated that both the linear...
and the quadratic model are a statistically significant good fit to the data examining the relationship between psychological well-being and relational aggression but that neither model is a better fit to the data than the other.
Chapter Four

Discussion

The current study contributes meaningfully to the active area of research exploring the association between relational aggression and distress in emerging adult samples. Typically, exclusively linear models have been utilized, warranting inconsistent cross-study results. However, in the current study, both linear and curvilinear (quadratic) models of the relationship between relational aggression and three related variables of interest (anxiety, global psychological distress, and psychological well-being) were explored.

In the total sample, the linear models of the relationship between relational aggression and both anxiety and global psychological distress were significant. Similarly, significant, but small, positive correlations were found between relational aggression and both anxiety and global psychological distress. Significant, but small, negative correlations were also found between relational aggression and psychological well-being. This is consistent with previous studies of emerging adult samples in which positive associations have been found between relational aggression and self-reports of general anxiety symptoms, affiliation anxiety, depression symptoms, guilt, discomfort, stress, and feelings of loneliness. (Bagner, Storch, & Preston, 2007; Dahlen et al., 2013; Goldstein, Chesir-Teran, & McFaul, 2007; Leenars & Lester, 2011; Loundin et al., 2003; Ostrov & Godleski, 2007; Werner & Crick, 1999).

At the same time, in the total sample, curvilinear, quadratic models of the relationship between relational aggression and all three variables of interest (anxiety, global psychological distress, and psychological well-being) were significant when
examined using curve estimation analyses. Follow-up t-test comparisons of quadratic and linear model residuals were not significant, suggesting that neither the quadratic nor the linear model was a significantly “better fit” to any of the three relationships examined.

The lack of conclusive findings regarding the relationship between relational aggression and emotional functioning in the current sample is similar to the cross-study inconsistencies found throughout the literature. Some studies have found varying degrees of positive association between self-reported psychological distress and relational aggression in emerging adult samples (Bagner, Storch, & Preston, 2007; Goldstein, Chesir-Teran, & McFaul, 2008; Werner & Crick, 1999). On the other hand, other studies have found either no significant associations or negative associations between relational aggression and psychological distress (Lento-Zwolinski, 2007; Sandstrom & Cillessen, 2010; Werner & Crick, 1999).

Inconsistencies have previously been explained in a variety of ways. Many argue that inconsistent findings are an artifact of measurement problems that have yet to be addressed (Archer, 2004). While the current study does not directly support or challenge this hypothesis, it does illuminate another possible explanation for cross-study inconsistencies; the relationship between relational aggression and distress may be non-linear, leading to inconsistent findings when examined through a linear lens. Evidence suggests that the association between relational aggression and distress may not be as straightforward as it is often presented to be. Higher levels of relational aggression may not inevitably be associated with increased psychological distress. These findings are similar to Resource Control Theory-based studies that suggest that contrary to dominant
themes in the literature, high levels of relational aggression are not necessarily associated with the widely-anticipated social impairment or incompetence (Hawley, 2007; Hawley, 2014; Hawley, Shorey, & Alderman, 2009; Hawley, Stump, & Ratliff, 2011).

**Discussion of Unexpected Findings**

The curvilinear models of the relationship between relational aggression and both anxiety and psychological distress were significant, as expected. However, contrary to expectations, the slopes of these models were both positive, rather than negative. In other words, in the total sample, average levels of relational aggression were associated with *more* distress and anxiety, while both lower- and higher-than-average levels of relational aggression were associated with *less* distress and anxiety. Similar trends were found in exploratory analyses examining the relationship between relational aggression and well-being (life satisfaction, general positive affect, and emotional ties). A curvilinear, quadratic model was significant, but the slope was negative, suggesting average levels of relational aggression in this sample were associated with *less* well-being, while both lower- and higher-than-average levels of relational aggression were associated with *greater* well-being.

These unexpected findings may be related to differences between the anticipated and actual characteristics of the current sample. The results of the current study are consistent with previous findings that suggest some degree of relational aggression is common, even during emerging adulthood (Lawrence et al., 2009; Werner & Crick, 1999). At the same time, average rates of endorsement on both the YACRA-S and the IAS-A were relatively low, and participants endorsed a generally restricted range of relational aggression (as compared to the full range assessed), particularly on the IAS-A.
Attachment theory predictions regarding relational aggression were based on the full possible range of levels of relational aggression in the emerging adult population. However, the full range of relational aggression, including high levels of relational aggression, was not represented in the current sample, which likely impacted the results. Further thoughts regarding this significant limitation of the current study will be discussed further below.

Despite unanticipated results, the significance of the quadratic models underscores the value of incorporating non-linear methods into this area of research and suggests that exploration of alternative theoretical and conceptual frameworks is warranted in order to gain more comprehensive and nuanced understanding of the relatively new construct of relational aggression.

**Additional Findings**

**Gender differences.** No significant gender differences were found in relational aggression as reported on the YACRA-S and represented by the composite relational aggression score. On the other hand, a significant gender difference was found in relational aggression, as assessed by the IAS-A. Although the effect size was small, results of an independent samples t-test indicated that males endorsed significantly more relational aggression than females on this measure.

The inconsistent findings in the current study are similar to inconsistencies throughout the literature. Some studies have found no gender differences in use of relational aggression in adolescence and emerging adulthood (Anguiano-Carrasco & Vigil-Colet, 2011; Bailey & Ostrov, 2007; Crick et al., 2007; Coyne et al., 2006; Linder et al., 2002; Verona et al., 2008). However, other studies have found evidence to suggest
that males utilize more relational aggression than females (Dahlen, Czar, Prather, & Dyers, 2013; Loudin, Loukas, & Robinson, 2003; Storch, Bagner, Geffken, & Baumeister, 2004).

It is unclear how to account for these findings. However, it is interesting to note that the IAS-A assesses for malicious humor, while the YACRA-S does not. These finding suggest that it may be worthwhile to explore not only gender differences in cumulative aggression scores but also gender differences in response patterns in order to bring deeper understanding to gender similarities and differences in relational aggression in emerging adulthood.

Additionally, curvilinear regression analyses and hierarchical regression analyses were conducted to further explore the possible role gender may have in moderating the relationship between relational aggression and distress and anxiety. However, none of these analyses were significant. Evidence from the current study is consistent with previous conclusions that gender may play a less significant role in the area of relational aggression than previously assumed.

**Race and ethnicity.** While race and ethnicity have largely been unexplored in the literature, in the current study these aspects of identity were examined to better understand the overall results. While hierarchical regression analyses were not significant and did not support a conceptualization of race and ethnicity as a moderator variable, interesting findings were revealed when curvilinear analyses were conducted separately for white and non-white participants. Analyses were not significant for white participants. However, both linear and quadratic models were significant for non-white participants. Furthermore, unlike the general sample, the slope of the curvilinear model
was positive, which was consistent with attachment-based hypotheses. Both higher and lower levels of relational aggression were associated with higher levels of distress. Further research is needed to bring clarity to these initial findings. However, these findings do suggest that the variable of race/ethnicity may introduce important variability in research on relational aggression and therefore warrants inclusion in future research designs.

**Implications**

**Implications for theory and research.** Most relational aggression research has been based in broad social cognitive and developmental psychopathology frameworks that are used to explore a wide-variety of problematic, undesirable, and antisocial behaviors, including physical aggression (Crain et al., 2005; Ferguson & Dyck, 2012; Murray-Close et al., 2016). These perspectives have been applied in a manner that suggests relational aggression is assumed to be an individual and social problem and typically utilize linear methods in research studies. As the comprehensive review provided in the current project highlights, inconsistencies and contradictory findings abound throughout the literature. Traditional (those most commonly used in this area) theoretical perspectives and statistical methods have failed to bring clarity and understanding to relational aggression.

Resource Control Theory (Hawley, 2003b) and attachment theory are both bottom-up theoretical perspectives that consider universal human needs and the variety of functions that relational aggression can serve, beyond simply causing harm (Stump et al., 2009). While RCT-based views on relational aggression have been researched somewhat extensively, the current study was the first to examine an attachment-based
conceptualization of relational aggression. As such, the current study was somewhat
exploratory in nature; further work is needed to expand upon, refine, and more
extensively test the initial ideas proposed here. However, much like existing RCT-based
studies, the current study suggests that expanding and developing the theoretical basis of
relational aggression research may facilitate deeper and more nuanced understanding of
relational aggression.

The current study attempted to bring innovation to this area by utilizing a clinical
perspective, attachment theory (Bowlby, 1969; Wallin, 2007), to generate hypotheses
regarding the relationship between relational aggression and distress that might
accommodate and explain the inconsistencies in this area. The current study also was the
first known attempt to explore possible non-linear models of the relationship between
relational aggression and psychological distress. Although the non-linear model was not
found to be a better fit to the data than the linear model, it was still significant. While
further research is needed to gain deeper understanding of the findings of the current
study, the identified significance of curvilinear models supports the use of alternative
theoretical perspective and non-linear statistical methods in future studies.

**Implications for intervention.** The preliminary findings of the current study
have implications for both how relational aggression is understood and how prevention
and intervention may be best implemented.

Although the linear model of the relationship between relational aggression and
psychological distress was significant, so, too was the curvilinear, quadratic model. This
finding challenges the widespread notion that higher levels of relational aggression are
necessarily associated with higher levels of distress. This provides further support for
criticism of the “zero-tolerance” approach to relational aggression in various settings (Chesney-Lind, Morash, & Irwin, 2007). If higher level of relational aggression are not necessarily associated with higher levels of distress, absolute eradication of relational aggression may have unintended negative results.

Furthermore, participants in the current study endorsed a generally low level of relational aggression overall. Findings of the current study suggest a normative conceptualization in terms of rates of use. Given the levels of relational aggression reported in the current sample, it may not be helpful to frame relational aggression as a widespread public health issue of individual and social concern. Some have argued for widespread, universal prevention and intervention programs for relational aggression in college and university settings (e.g., Dahlen et al., 2013). However, this would require use of college/university resources in a time when the university population’s mental health issues have reached notably high levels, while resources remain scarce. If we remain unclear regarding the association between relational aggression and distress, widespread prevention and intervention programs will likely continue to be ineffective. Furthermore, if the generally low rates of relational aggression in the current sample are representative of the broader rates in the population, universal programs seem unwarranted in emerging adulthood.

Findings of the current study suggest that relational aggression is exhibited at generally low rates in emerging adulthood and that the association between relational aggression and distress is small and/or non-linear. As such, individual (clinical) interventions may be best supported by our understanding of relational aggression at this time. Resources should be devoted to those highly relationally aggressive individuals
suffering the potential consequences of their behavior and to victims of relational aggression suffering the consequences of victimization.

**Limitations & Future Directions**

As previously referenced, one of the most evident limitations of the current study is the limited range (low level) of relational aggression endorsed by the current sample. The hypotheses being tested were based in theoretical arguments regarding the full range of relational aggression in emerging adulthood, which was likely not captured in the current study. There are various associated areas of limitation that highlight meaningful future directions for further study.

Self-report methods were used due to the lack of readily identifiable and accessible alternatives for accessing the “insider knowledge” needed to capture covert and ambiguous behaviors (Geiger et al., 2003; Herschovis & Reich, 2013). However, self-report is notoriously problematic, and measurement is an issue that cannot be ignored in the current study. Self-reports are susceptible to demand characteristic or social desirability-related influence, leading to underreporting of behavior (Gregoski et al., 2005). Also, participants may have difficulty recognizing this behavior or may be reluctant to report the behavior if it is separated from the context in which the retaliation was perceived to be justified (Verona et al., 2008). The low endorsement of relational aggression in the current sample is not necessarily representative of the true state of affairs, as measurement issues and underreporting cannot be ruled out at this time.

Regardless of the extent to which reported levels of relational aggression are an artifact of measurement and the extent to which reports of relational aggression represent the “true state” of affairs, measurement innovation is needed. Future research including
peer nomination instruments and other informants is needed to replicate and expand upon current findings. Using other forms of measurement would also help to address possible shared method variance issues in the current study (both variables were studied via self-report). In general, college campuses provide a unique research opportunity. Students live, attend school, and often work and receive treatment all in the same setting. Cross-campus collaboration may allow for development of new approaches to studying relational aggression in this age group.

The chosen sample may also have been an issue. As per the norm in relational aggression research, a non-clinical undergraduate sample was utilized. If higher levels of relational aggression in emerging adulthood are rare, it may be difficult to capture the full range of relational aggression in a random sample. It may be beneficial to include both non-clinical and clinical samples in future studies in order to access, with greater certainty, both the lower and higher levels of relational aggression. As noted above, the university research setting may provide unique opportunities for exploring relational aggression in clinical samples of emerging adults.

While the current study did not support a conceptualization of gender or race/ethnicity as a moderator variables, interesting findings related to race and ethnicity were found, as discussed above. Although the sample size of the current study limits interpretation of these findings, it seems clear that further exploration of the importance of identity and demographic variables in relational aggression is needed. Exploration of socioeconomic status or religious affiliation, for example, may help to understand the relationship between relational aggression and distress. Further investigation of the current study’s findings related to race and ethnicity is also warranted.
Conclusions

Relational aggression is frequently conceptualized as an individual and social problem. However, a comprehensive review of the literature reveals a much more ambiguous story. There is both an empirical and theoretical basis for exploring the possibility that an alternative conceptualization of this phenomenon may be more accurate. Researchers exploring alternative conceptualizations of the relationship between relational aggression and social functioning have found promising results. The current study attempted to bring similar innovation to the study of the relationship between relational aggression and psychological distress. While the current study did not bring the level of clarity anticipated, it did provide promising initial results suggesting that further theoretical and empirical examination of alternative conceptual models of relational aggression is warranted.
References


105


108


**Appendix A**

**IAS-A**

**Instructions:** In the past 12 months, how often have you used the following behaviors against another person?

<table>
<thead>
<tr>
<th></th>
<th>1 Never</th>
<th>2 Once or Twice</th>
<th>3 Sometimes</th>
<th>4 Often</th>
<th>5 Regularly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Used my relationship with them to try and get them to change a decision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Used sarcasm to insult them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Tried to influence them by making them feel guilty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Withheld information from them that the rest of the group is let in on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Purposefully left them out of activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Made other people not talk to them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Excluded them from a group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Used their feelings to coerce them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Made negative comments about their physical appearance to mutual friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Used private jokes to exclude them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Used emotional blackmail on them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Imitated them in front of others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Spread rumors about them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Played a nasty practical joke on them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Done something to try and make them look stupid in front of others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Pretended to be hurt and/or angry with him/her to make him/her feel bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Made them feel that they don't fit in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Intentionally embarrassed them around Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Stopped talking to them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Put undue pressure on them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Left them out of conversations on Purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Made fun of them in public</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Called them names</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Criticized them in public</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Turned other people against them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix B

YACRA-S

Instructions: When an individual is hurt, mad, or upset with another person, s/he can react in a variety of ways. When you have been hurt, mad, or upset with someone, such as a friend or romantic partner, how often have you reacted in the following ways (circle one)?

<table>
<thead>
<tr>
<th>Never (I have not done this even once.)</th>
<th>Almost Never (I usually have not done this, but there has been at least one time that I did.)</th>
<th>Sometimes (I have done this occasionally, but there are also times when I have not.)</th>
<th>Often (I have regularly done this, but I have not done it every time.)</th>
<th>Almost Always (I have done this almost every time.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Forgiven them</td>
<td>2. Told them that you were hurt, angry, or upset</td>
<td>3. Talked with them in order to fix things</td>
<td>4. Told others what happened</td>
<td>5. Ignored their phone calls, texts, or emails</td>
</tr>
<tr>
<td></td>
<td>4. Told others what happened</td>
<td>5. Ignored their phone calls, texts, or emails</td>
<td>6. Pretended you didn’t care about them at all</td>
<td>7. Purposefully excluded them from activities</td>
</tr>
<tr>
<td></td>
<td>7. Encouraged others to spend time with you instead of them</td>
<td>8. Encouraged others to spend time with you instead of them</td>
<td>9. Told others something they told you privately</td>
<td>10. Purposefully excluded them from conversations</td>
</tr>
<tr>
<td></td>
<td>10. Purposefully excluded them from conversations</td>
<td>11. Made negative comments about them to mutual friends</td>
<td>12. Posted negative comments about them on social networking sites (e.g., MySpace, Facebook, Twitter, etc.)</td>
<td>13. “Un-friended” or blocked them on social networking sites</td>
</tr>
<tr>
<td></td>
<td>13. “Un-friended” or blocked them on social networking sites</td>
<td>14. Threatened to hurt them physically</td>
<td>15. Threw something at them</td>
<td>16. Became physically aggressive with them</td>
</tr>
<tr>
<td></td>
<td>14. Threatened to hurt them physically</td>
<td>15. Threw something at them</td>
<td>16. Became physically aggressive with them</td>
<td>122</td>
</tr>
</tbody>
</table>
Appendix C

Mental Health Inventory

Instructions: These questions are about how you feel and how things have been for you during the past month. Please read each question carefully and mark that answer that best describes how you have been feeling. There are no right or wrong answers.

1. How happy, satisfied, or pleased have you been with your personal life during the past month? (Mark one)
   (1) Extremely happy, could not have been more satisfied or pleased
   (2) Very happy most of the time
   (3) Generally satisfied, pleased
   (4) Sometimes fairly satisfied, sometimes fairly unhappy
   (5) Generally dissatisfied, unhappy
   (6) Very dissatisfied, unhappy most of the time

2. How much of the time have you felt lonely during the past month? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

3. How often did you become nervous or jumpy when face with excitement or unexpected situations during the past month? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never
4. During the past month, how much of the time have you felt that the future looks hopeful and promising? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

5. How much of the time, during the past month, has your daily life been full of things that were interesting to you? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

6. How much of the time, during the past month, did you feel relaxed and free from tension? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

7. During the past month, how much of the time have you generally enjoyed the things you do? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time
8. During the past month, how you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or remember things? (Mark one)

   (1) No, not at all
   (2) Maybe a little
   (3) Yes, but not enough to be concerned or worried about it
   (4) Yes, and I have been a little concerned
   (5) Yes, and I am quite concerned
   (6) Yes, and I am very much concerned about it

9. Did you feel depressed during the past month? (Mark one)

   (1) Yes, to the point that I did not care about anything for days at a time
   (2) Yes, very depressed almost every day
   (3) Yes, quite depressed several times
   (4) Yes, a little depressed now and then
   (5) No, never felt depressed at all

10. During the past month, how much of the time have you felt loved and wanted? (Mark one)

    (1) All of the time
    (2) Most of the time
    (3) A large portion of the time
    (4) Some of the time
    (5) A little of the time
    (6) None of the time

11. How much of the time, during the past month, have you been a very nervous person? (Mark one)

    (1) All of the time
    (2) Most of the time
    (3) A large portion of the time
    (4) Some of the time
    (5) A little of the time
    (6) None of the time
12. When you have gotten up in the morning, this past month, about how often did you expect to have an interesting day? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never

13. During the past month, how much of the time have you felt tense or “high strung?”
   (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

14. During the past month, have you been in firm control of your behavior, thoughts, emotions, and/or feelings? (Mark one)
   (1) Yes, very definitely
   (2) Yes, for the most part
   (3) Yes, I guess so
   (4) No, not too well
   (5) No, and I am somewhat concerned about it
   (6) No, and I am very concerned about it

15. During the past month, how often did your hands shake when you tried to do something? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never
16. During the past month, how often did you feel that you had nothing to look forward to?
(Mark one)
    (1) Always
    (2) Very often
    (3) Fairly often
    (4) Sometimes
    (5) Almost never
    (6) Never

17. How much of the time, during the past month, have you felt calm and peaceful? (Mark one)
    (1) All of the time
    (2) Most of the time
    (3) A large portion of the time
    (4) Some of the time
    (5) A little of the time
    (6) None of the time

18. How much of the time, during the past month, have you felt emotionally stable? (Mark one)
    (1) All of the time
    (2) Most of the time
    (3) A large portion of the time
    (4) Some of the time
    (5) A little of the time
    (6) None of the time

19. How much of the time, during the past month, have you felt sad, down, or blue? (Mark one)
    (1) All of the time
    (2) Most of the time
    (3) A large portion of the time
    (4) Some of the time
    (5) A little of the time
    (6) None of the time
20. How often have you felt like crying during the past month? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never

21. How much of the time, during the past month, were you able to relax without difficulty?
   (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

22. How much of the time, during the past month, did you feel that your love relationships (loving and being loved) were full and complete? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

23. How often, during the past month, did you feel that nothing turned out for you the way you wanted it to? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never
24. How much have you been bothered by nervousness, or your “nerves,” during the past month? (Mark one)
   (1) Extremely so, to the point where I could not take care of things
   (2) Very much bothered
   (3) Bothered quite a bit
   (4) Bothered some, enough to notice
   (5) Bothered just a little
   (6) Not bothered at all by this

25. During the past month, how much of the time has living been a wonderful adventure for you? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

26. How often, during the past month, have you felt so down in the dumps that nothing could cheer you up? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never

27. During the past month, how much of the time have you felt restless, fidgety, or impatient? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time
28. During the past month, how much of the time have you been moody or irritable about things? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

29. How much of the time, during the past month, have you felt cheerful or lighthearted? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

30. During the past month, how often did you get upset? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never

31. During the past month, have you been anxious or worried? (Mark one)
   (1) Yes, extremely to the point of being sick or almost sick
   (2) Yes, very much so
   (3) Yes, quite a bit
   (4) Yes, some, enough to bother me
   (5) Yes, a little bit
   (6) No, not at all
32. During the past month, how much of the time were you a happy person? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

33. How often during the past month did you find yourself trying to calm down? (Mark one)
   (1) Always
   (2) Very often
   (3) Fairly often
   (4) Sometimes
   (5) Almost never
   (6) Never

34. During the past month, how much of the time have you been in low spirits? (Mark one)
   (1) All of the time
   (2) Most of the time
   (3) A large portion of the time
   (4) Some of the time
   (5) A little of the time
   (6) None of the time

35. How often, during the past month, have you been waking up feeling fresh and rested? (Mark one)
   (1) Always, every day
   (2) Almost every day
   (3) Most days
   (4) Some days, but usually not
   (5) Hardly ever
   (6) Never wake up feeling rested
36. During the past month, have you been under any strain, stress, or pressure? (Mark one)
   (1) Yes, almost more than I could stand or bare
   (2) Yes, a large amount of pressure
   (3) Yes, some more than usual
   (4) Yes, some, but about normal
   (5) Yes, a little bit
   (6) No, not at all
Appendix D

Demographics Questionnaire

Your age: ______ years

Gender (circle one): (1) Female (2) Male

Current Year in School (circle one):
(1) Freshman
(2) Sophomore
(3) Junior
(4) Senior
(5) Other (please specify): ______________________

How would you describe your ethnic background?:
(1) Black or African American
(2) White or Caucasian
(3) Asian or Pacific Islander
(4) Hispanic
(5) American Indian/Alaskan Native
(6) Other (please specify):

_______________________________________________________
Appendix E

Study Instructions

I am a graduate student in the Clinical Psychology program at the University of Toledo and will be using the data collected from the following questionnaires for my Dissertation. I appreciate that you have taken the time and effort to participate in my research! The purpose of the project is to better understand the behavior and wellbeing of college students, so please describe yourself and your behaviors as honestly and accurately as possible. The questionnaire should take no more than 60 minutes to complete, but feel free to take as much time necessary to respond to the items. In order to ensure your confidentiality, no identifying information will be linked to your answers. So, please do not record your name anywhere on the packet. If you have any questions, feel free to ask me, but do not talk to one another.
Appendix F

Debriefing Statement

Thank you for participating in our research.

We are exploring the behavior of college students, particularly in regards to the manner in which they interact with friends, roommates, classmates, and romantic partners. More specifically, we are interested in the strategies they use to resolve conflicts with the individuals who are close to them and the relationship between conflict-related behaviors and broader distress or discomfort.

Please do not discuss the items on the questionnaire or your responses to the items because it is important that new participants interpret and respond to the items free of outside influence.

Do you have any questions? Again, thank you for participating.