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The Relationship Between Femininity Ideology and Overt and Relational Aggression and Peer Victimization Among Girls

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ABSTRACT

This study examined the relationship between gender socialization, assessed by the gender ideologies of inauthenticity in relationships and body objectification (Tolman & Porche, 2000), and overt and relational aggression and peer victimization among 212 girls in five Denver, Colorado public middle schools. A feminist developmental perspective was used to 1) examine whether internalized norms of femininity were related to overt and relational aggression and peer victimization; 2) evaluate whether girls used certain types of aggressive behavior to *adhere* to, or *reject*, norms of femininity; and 3) assess whether girls who were victimized were more likely than other girls to internalize such norms. Findings from structural equation modeling analyses revealed little empirical support for the hypothesized relationships between norms of femininity and girls' aggressive behavior. A significant relationship, however, was found between inauthentic self in relationships with others and peer victimization. This finding indicated that girls who were more likely to be inauthentic in their relationships with others had higher rates of peer victimization than other girls. Implications of these findings for developmental theory, research, and social work practice are delineated.

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CHAPTER 1

INTRODUCTION

Aggression has been characterized historically as a male phenomenon, and as such, most theoretical models and empirical studies of aggression and violence have focused on boys rather than girls (Pepler & Craig, 2005). Consequently, girls have often been viewed as more passive and less likely to display hostility or anger, implying that aggression among girls is less prevalent and severe than it is among boys (Pepler & Craig, 2005; Zahn-Waxler & Polanichka, 2004). However, recent increases in arrests among girls for assault and new evidence from the study of relational aggression, a covert form of aggression theorized to be more salient for girls, have led to greater attention to understanding the unique patterns of risk and protection among female perpetrators and victims (McKnight & Putallaz, 2005; Pepler & Craig, 2005).

Unique gender socialization practices require new ways of thinking about the onset and persistence of aggressive behavior and peer victimization among girls. Consideration of a female perspective is important in understanding the unique developmental context of girls and for unraveling factors associated with the onset and persistence of behaviors, such as aggression and victimization. Through a heightened awareness of the perspective of girls and women, new developmental processes and unique correlates of risk behavior may be revealed that are more salient for girls and their development (Crick & Rose, 2000). For example, when a female perspective is applied to the study of aggression, research has shown that girls are more likely to be provoked by conflicts that are relational in nature, where boys are more likely to be provoked by

instrumental conflicts (Crick & Rose, 2000). Consequently, the application of this perspective implies that the function of or meaning behind aggressive behavior and peer victimization may be quite different for girls than boys.

Conceptual and Operational Definitions

The Female Perspective

The female perspective, rooted in feminist theory, argues that the unique experiences of girls and women must be considered in postulations about their development (Crick & Rose, 2000). Although feminist theories vary to some degree in their major tenets, three primary concepts are consistent (Miller & Scholnick, 2000). First, individuals are intimately connected to one another, rather than solitary and separate, and are therefore relational in nature. Second, all human experiences and knowledge are context-specific rather than universal and decontexualized. Third, society is characterized as androcentric and patriarchical in nature; therefore issues of power, control, and self-interest emerge (Miller & Scholnick, 2000). Collectively, feminist theories purport that gender is a significant individual characteristic that interacts with other characteristics (i.e. race and class) to structure relationships within society – between individuals and within groups (Rosser & Miller, 2000).

Feminist Developmental Framework

The feminist developmental framework stems from a set of theories derived from a feminist perspective that describe ways in which girls' development is affected by, and responds to, patriarchal societal and cultural norms (Impett, Schooler, & Tolman, 2006). This framework suggests that, in a patriarchal society, many girls experience pressure to behave in "feminine" ways in their relationships with others – by avoiding conflict, suppressing anger, and behaving nicely versus assertively – and in their relationships with their bodies – by managing their bodies to

conform to predominant standards of beauty and attractiveness (Impett et al., 2006; Tolman, Impett, Tracy, & Michael, 2006).

Inauthentic Self in Relationships with Others. A feminist developmental perspective suggests that the experience and development of the self for girls is integrally connected to her personal relationships and is largely based on her ability to maintain these relationships (Impett et al., 2006). One way girls may attempt to preserve relationships is to silence their authentic thoughts, needs, and feelings, particularly as a strategy to reduce conflict and avoid the expression of anger (Impett et al., 2006). The construct, *inauthenticity in relationships* (Tolman & Porche, 2000), is realized when girls conceal their true thoughts and feelings, especially those seen as unfeminine, such as anger (Impett et al., 2006).

Objectified Relationship with One's Body. A feminist developmental framework proposes that learning to live in a female body is a critical developmental aspect of adolescence, particularly with the onset of puberty occurring during this stage of development. The experience of the body for girls, according to this perspective, is greatly affected by societal and cultural norms about the commodification and objectification of the female form (Impett et al., 2006, Tolman & Porche, 2000). This may result in a preoccupation with one's own body whereby girls and women constantly survey and evaluate their physical appearance. This in turn may create a disembodying experience in which ones' body becomes an object rather than the subject of a person's experiences (Tolman & Porche, 2000). This process can be described as having *an objectified relationship with one's own body* and is realized through the disassociation with the body and the performance of feminine or "ladylike" physical movements (Impett et al., 2006).

Aggression and Peer Victimization

At the same time girls are learning to navigate the demands of femininity (Impett et al., 2006), they are under mounting social pressures as same-gender and opposite-gender peer relationships become increasingly important (Steinberg, 2005). Aggression, and consequently victimization, can serve as effective and powerful mechanisms for establishing social structure and managing peer relationships (Putallaz, Kupersmidt, Coie, McKnight, & Grimes, 2004; Underwood, 2003). Although most contemporary theorists view aggression as a multi-faceted construct (Coie & Dodge, 1998), researchers have determined distinct features and functions of overt and relational aggression (Crick, 1996, 1997; Crick & Grotpeter, 1995; Little, Henrich, Jones, & Hawley, 2003).

Forms of Aggressive Behavior. Relational and overt aggression, and consequently victimization, are important aspects of establishing social structure and managing peer relationships during adolescence (Putallaz et al., 2004; Underwood, 2003). Relational aggression is characterized by using relationships as the primary means to inflict harm, employing direct confrontational or indirect non-confrontational tactics, and using nonverbal attacks (Putallaz et al., 2004). More specifically, relational aggression is described as: talking about others (gossiping, breaking confidences), exclusionary behaviors (ignoring, ostracizing), harassment (prank phone calls, note writing), and nonverbal aggression (dirty looks, gestures) (Owens, Shute, & Slee, 2000; Underwood, 2003). Conversely, overt aggression is characterized as verbal and physical behaviors with the intention of physical harm. Overt aggression includes behaviors such as hitting, kicking, pushing, or verbal attacks as well as by the expression of physical intimidation and threats directed at individuals (Little et al., 2003).

Functions of Aggressive Behavior. To illuminate the multi-dimensional nature of aggressive behavior, Dodge and colleagues (Dodge, 1991; Dodge & Coie, 1987) differentiated between two distinct functions of aggression: reactive and instrumental. Importantly, these distinctions appear to

hold true for both overt and relational aggression (Little et al., 2003). Reactive aggression is defined as aggression that occurs in angry defense to provocation (Little et al., 2003). Instrumental aggression is defined as aggression that is self-serving to achieve a particular social goal (Little et al., 2003). Differential socialization practices appear to contribute to gender differences in aggression and victimization (Zahn-Waxler & Polanichka, 2004). Thus, examining the function of aggression may be particularly useful in understanding why girls become aggressive, and consequently how victims respond to these related, yet distinct forms and functions of aggression.

Peer Victimization

Peer victimization can generally be defined as intentional, repeated exposure to relational and physical forms of aggressive behavior. Peer victimization implies that an aggressive individual or peer group intentionally inflicts physical or relational harm on a weaker person. Therefore, peer victimization implies a power imbalance when the aggressor(s) exerts actual or perceived power over a weaker victim (Olweus, 1993). Victimization is typically described as repeated and chronic, occurring frequently over time (Olweus, 1993; Solberg, Olweus, & Endresen, 2007). However, most research on the stability of peer victimization focuses primarily on the frequency of victimization rather than on its chronicity (Paul & Cillessen, 2007).

Prevalence Estimates of Aggression and Peer Victimization

Prevalence estimation for aggression and peer victimization varies greatly across studies, largely due to the variety of methodologies employed. For example, some studies reporting prevalence estimates utilize different data sources, such as peer nominations, teacher ratings, or self-report questionnaires. Other studies use different time frames to measure exposure to and involvement in aggression. For example, time frames can be a whole school year, one semester, the past 2 or 3 months or past 30 days. In addition, response sets vary greatly. In some cases,

response sets may only include a simple yes or no. In other cases, responses may include subjective frequency alternatives such as "seldom" to "very often" or more specific categories such as "not at all in the past month" to "several times a week." Finally, some studies base prevalence estimates on a single item/variable, whereas others use some form of composite score or scale index consisting of, for example, the mean or sum of several variables/items or ratings (Solberg & Olweus, 2003).

Although such differences exist, recent studies of school-aged children suggest that approximately 25-35 percent of children and youth bully other students or experience peer victimization (Baldry & Farrington, 2000; Jenson & Dieterich, 2007; Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Rigby, Smith, & Pepler, 2004). Current literature also estimates that approximately 6% of students can be considered both bullies and victims (Solberg & Olweus, 2003). It is important to note, however, that these reported rates collapse relational and overt aggression and victimization, a step that complicates estimating the prevalence of these distinct behaviors.

Relational Aggression

Estimating the prevalence of relational aggression among girls is complicated by significant measurement and definitional issues. Three terms have been presented to describe covert forms of aggression: indirect (Lagerspetz, Bjorkqvist, & Peltonen, 1988; Owens, Shute, & Slee 2000), social (Galen & Underwood, 1997; Paquette & Underwood, 1999; Xie, Cairns, & Cairns, 2002), and relational (Crick & Grotpeter, 1995; Crick, Bigbee, & Howes, 1996). Each definition includes different behaviors, which makes capturing consistent rates of relational aggression difficult.

Substantial differences exist in the ways in which relationally aggressive behaviors are measured. Most commonly, investigations have used peer nomination techniques that require peers to rate their classmates' aggressive behavior. These studies suggest that approximately 17% of girls can be classified as relationally aggressive (Crick & Grotpeter, 1995; Crick et al., 1996). Although these investigations have reported prevalence estimates, Crick and colleagues caution that this rate may be underestimated because of this specific methodology used. Self-reports and teacher reports often yield different rates of relational aggression. Further challenges in estimating the prevalence of relational aggression emerge when differentiating between normative versus pathological aggressive behavior. Geiger, Zimmer-Gemback, and Crick (2004) argue that low to moderate levels of relationally aggressive behavior are normative. They suggest that in order to accurately and consistently capture rates of relational aggression among youth the behaviors included in the definition and in behavioral assessments must include only acts that involve the intent and delivery of harm. Consistent across several studies are noteworthy gender differences, where girls evidence significantly higher rates of relationally aggressive behavior when compared to boys (Crick & Grotpeter, 1995; Crick et al., 1996; Galen & Underwood, 1997; Lagerspetz et al., 1988).

Overt Aggression, Violence, and Delinquency

Boys demonstrate higher rates of overt aggression and violence compared to girls. For example, data from the Youth Risk Behavior Surveillance Survey (YRBSS) indicate that significant gender differences are found in behaviors that contribute to unintentional injuries and physical violence among students in grades 9 – 12 (Centers for Disease Control and Prevention, 2004). In 2004, boys were twice as likely than girls to report engaging in a physical fight, four times as likely

to report carrying a weapon to school, and six times more likely to report carrying a gun (CDC, 2004).

Many authors have noted that girls have displayed more physical aggression, violence, and delinquency over the two last decades, although rates still remain less prevalent in comparison to boys (Miller-Johnson, Moore, Underwood, & Coie, 2005). Arrest records from the Bureau of Investigation's Uniform Crime Reports indicate that simple assault, aggravated assault, and other violent crimes such as homicide and armed robbery have increased significantly among girls in the past two decades relative to boys (Steffensmeier, Schwartz, Zhong, & Ackerman, 2005). Furthermore, male delinquency cases have steadily declined since 1991 while female delinquency cases have increased consistently from 1991 to 2003. The sharpest growth in female arrests has been for person offenses (Snyder & Sickmund, 2006). Additionally, between 1980 and 2003, the female proportion of juvenile arrests rose significantly for simple and aggravated assaults, vandalism, liquor law violations, and curfew and loitering law violations (Snyder & Sickmund, 2006). Despite these increases it is important to note that the proportion of female arrests remain lower than male proportions with girls accounting for approximately 26% of all delinquency cases (Snyder & Sickmund, 2006).

Some authors suggest that gender differences in offending can be explained by subsequent gender differences in socialization, cognitive and neurological functioning, personality, and hormonal and biochemical composition (Tracy, Kempf-Leonard, & Abramoske-James, 2009). They further note that some feminist criminologists suggest that understanding female crime requires an awareness of individual stories obtained through qualitative investigations. These studies have illustrated to some degree girls' offending and have suggested that girls offend in a

manner distinct from that of boys, but causal links and issues of generalizability remain (Tracy et al., 2009).

A recent report, however, from the Girls Study Group of the Office of Juvenile Justice and Delinquency Prevention indicates that changes in arrest laws, in law enforcement policy, and in the establishment of zero tolerance policies in schools may account for these increases in female crime rather than actual changes in girls' behavior (Zahn, Hawkins, Chiancone, & Whitworth, 2008). Additionally, despite increases in girls' arrests, self-report data indicate that girls' behavior has remained stable over time (Zahn et al, 2008). They suggest that mandatory and pro-arrest policies have increased the likelihood of arrest for both genders; however the impact appears to be greater for girls than boys. A potential explanation for this finding is the link between family conflict and girls' arrests as family conflict accounts for a larger proportion of girls' offending than boys' offending (Zahn et al., 2008).

Prevalence rates of relational and overt aggression, peer victimization, violence, and delinquency among girls indicate that a substantial number of girls are affected by these behaviors. As such, recent investigations have examined the significant individual and social consequences of aggression and peer victimization on girls' development. The following section highlights known consequences of aggression and peer victimization that then provide a context for understanding the importance of these problem behaviors and helps to substantiate the need for further inquiry into these phenomena.

Importance of the Problem

Evidence indicates that victims of relational aggression, and to some degree the aggressors themselves, experience increased feelings of loneliness, rejection, and emotional distress, with detrimental effects being more evident for girls than boys (Crick & Grotpeter, 1995;

Galen & Underwood, 1997; Paquette & Underwood, 1999; Underwood, 2003; Xie et al., 2002). Research also suggests that overt aggression, and as a result victimization, carry significant consequences for both the perpetrators and the victims (Steffensmeier et al., 2005), including delinquency, peer rejection, loneliness, depression, and decreased friendship quality (Little et al., 2003). Youth who engage in overt forms of aggression exhibit higher levels of risk compared to children who participate in relational aggression. For example, van der Wal and colleagues found that children who engaged in overt forms of aggression were at significantly higher risk for later delinquency than children who used relational aggressive tactics (van der Wal, de Wit, & Hirasing, 2003). Youth who are both aggressive towards their peers and who are victimized are at greatest risk for externalizing problems such as antisocial behavior and delinquency, internalizing problems such as social anxiety and depression and peer relational problems such as peer rejection (Crick & Grotpeter, 1995; Haynie, Nansel, Eitel, Crump, Saylor, Yu, & Simons-Morton, 2001; Marini, Danes, Bosacki, & YLC-CURA, 2006; Paquette & Underwood, 1999; Roland, 2002; Unnever, 2005).

The significant social and individual consequences encountered by aggressive and victimized youth demand an increase in knowledge about these complex behaviors. In particular, studies are needed to identify the unique features and functions of aggression and peer victimization among girls. Such investigations should incorporate a female perspective to accurately describe aggression and peer victimization among girls and young women.

Study Purpose

The purpose of this study is to explore the relationship between gender socialization – expressed as inauthenticity in relationships and body objectification (Tolman & Porche, 2000) – and overt and relational aggression and victimization among girls. Previous research has demonstrated a relationship between these two gender ideologies and mental and sexual health

outcomes in girls (Impett et al., 2006; Tolman et al., 2006). However, the common belief that differential socialization practices contribute to gender differences in aggression and victimization has seldom been examined. While some authors have explored the influence of gender socialization on aggression (Underwood, 2003; Zahn-Waxler & Polanichka, 2004), most studies focus on toddlers or on parenting practices related to gender socialization. Other investigations have yielded limited findings and have largely been based on therapeutic experiences and qualitative inquires (Nichols, Graber, Brooks-Gunn, & Botvin 2006). Thus, research to date has yet to empirically examine how conventions of femininity are internalized and how such conventions may contribute to aggressive behavior and victimization among girls.

A primary aim of this investigation was to test the relationship between the internalization of gender norms and aggression and peer victimization. Three specific research questions guided this inquiry:

- Is the degree to which young women internalize norms of femininity related to overt and relational aggression and victimization?
- Do young women use certain forms of aggressive behavior to *adhere* or *reject* norms of femininity?
- Are girls who are victimized more likely than other girls to internalize such norms?

Studies indicate that the socialization of girls is distinct from boys. However, the nature of girls' socialization must be considered in theoretical postulations about the prediction and prevention of aggressive behavior (McKnight & Putallaz, 2005). To successfully prevent and intervene with overt and relational aggression and peer victimization new strategies must be developed that address the unique developmental context of girls. Therefore, exploring the relationship between the internalization of norms of femininity and aggression and victimization

among girls is critical for increasing our understanding of the function of aggression. Establishing a relationship between the internalization of femininity ideologies, aggression and victimization may also lead to the development of new, gender-specific prevention and intervention programs designed to mitigate the consequences of these behaviors on girls' development. Also, the application of structural equation modeling in the current study adds the needed analytic approach that is necessary to investigate complex relationships among femininity ideology, aggression, and victimization. More accurate results may lead to the development of new, more appropriate prevention and intervention strategies for girls.

Summary

Recent trends in the study of aggression and peer victimization have brought the unique experience and developmental context of girls into greater focus. Applying a feminist perspective to aggression and victimization among girls illuminates the need to understand the distinct features and functions of girls' aggression, and consequently peer victimization. This investigation examines the relationship between the internalization of certain norms of femininity and girls' exposure to and involvement in aggressive behavior and peer victimization. The following chapter provides a review of literature of the existing knowledge of girls' aggression and peer victimization with particular emphasis on applying a feminist developmental perspective to these experiences.

CHAPTER 2

REVIEW OF THE LITERATURE

A Theoretical Model for Understanding Problem Behavior

Ecological systems theory is a prominent theoretical framework used in social work to understand the onset and maintenance of problem behaviors among children, youth, and adults across the developmental life course. Originating from Bronfenbrenner's ecological theory of human development (1979, 1986), ecological systems theory characterizes human development as the interaction between a person and his/her environment. This theoretical framework is frequently applied to the study of aggression and peer victimization (Moretti, Catchpole, & Odgers, 2005; Pepler & Craig, 2005) and is used to inform our understanding of what factors increase or mitigate the onset and persistence of problem behavior among children and youth. In the context of childhood and adolescence, these factors include influences within the individual and his/her school, peer, family and community environment.

Risk factors are theorized to increase the likelihood of problem behavior (Jenson & Fraser, 2006; Richman & Fraser, 2001). Richman and Fraser (2001) suggest that risk factors can be *nonspecific* or *specific*. Nonspecific risk factors are not directly related to an increased probability of a particular problem occurring but rather they are related to a range of poor outcomes. Nonspecific risk factors may include such factors as ineffective parenting, school failure or poverty that have been demonstrated to predict a number of negative developmental outcomes (Richman & Fraser, 2001). Conversely, specific factors are theorized to be related to a specific problem or negative

outcome (Richman & Fraser, 2001). For example, in the study of adolescent alcohol use, it has been suggested that parental alcohol misuse is a specific risk factor for adolescent problematic alcohol use (Richman & Fraser, 2001).

Protective factors include individual attributes or environmental characteristics that mitigate the likelihood of problem behavior (Jenson & Fraser, 2006; Richman & Fraser, 2001). It is theorized that these factors delay, diffuse, or counteract negative outcomes (Richman & Fraser, 2001). Richman and Fraser (2001) suggest that these factors operate in two ways: as compensatory effects and as buffering effects. They define compensatory effects as factors that directly mitigate a problem by reducing the probability that a negative outcome will occur for each level within an individual and his/her social environment. Therefore, a compensatory effect would exert a direct effect on the outcome. A buffering protective effect interacts with a risk factor and is therefore tested by estimating an interaction term between the effect and the risk factor. For example, individual intelligence has been shown to buffer children's exposure to risk stemming from conditions of poverty (Richman & Fraser, 2001). Protective factors are particularly useful in designing prevention and intervention approaches (Richman & Fraser, 2001) as they provide a platform or target for addressing a specific negative outcome. By understanding individual and contextual factors that reduce the probability of problems occurring, practitioners can develop more effective prevention and intervention strategies that promote or enhance protection while simultaneously moderating the impact of risk (Richman & Fraser, 2001).

Promotive factors refer to individual or social characteristics that exert positive effects on child and adolescent outcomes, regardless of the level of exposure to risk (Jenson & Fraser, 2006). Sameroff and Gutman (2004) suggest that promotive factors represent the opposite end of the risk spectrum, and therefore can be viewed as the converse of risk factors (Allen-Meares & Fraser,

2004). While protective factors moderate risk, particularly for at-risk populations, promotive factors have a positive effect on both high- and low-risk populations (Sameroff & Gutman, 2004).

Rutter (1990) proposed a developmental model of risk that highlights the person-environment perspective. He and other authors assert that development is shaped by interactions among risk, protective and promotive factors within an individual and his/her environment (Allen-Meares & Fraser, 2004; Richman & Fraser, 2001; Rutter, 2001; Sameroff & Gutman, 2004). Consequently, interactions within the school, family, peer, and community contexts are considered as key determining factors of socialization (Rutter, 1990) and can be used to inform our understanding of the development of aggression (Pepler & Craig, 2005). Importantly, the interaction of risk and protective factors, combined with the presence of promotive factors, within an individual and his/her environment occurs over time (Richman & Fraser, 2001; Rutter, 2001; Sameroff & Gutman, 2004). As risk accumulates the likelihood of problem behavior increases. Rutter (2001) describes this phenomenon as an individual's *level of risk* – the shear number of adversities found in a person's life. Therefore, the presence of a single risk factor does not ensure the onset of problem behavior (Richman & Fraser, 2001), but rather its presence implies a greater likelihood or probability that a problem might occur, which proportionately increases as risks accumulate (Jenson & Fraser, 2006).

Rutter (2001) also stresses the need to examine an individual's *sensitivity to risk* – differences in someone's sensitivity to risk may explain why some youth experience negative outcomes while others, who are exposed to similar levels of risk, may not. Sensitivity to risk is impacted by an individual's genetic make-up, including cognitive skills and temperament, and the effects of and responses to prior negative experiences, including the ability to overcome or respond effectively to similar adversities in the past (Rutter, 2001). It is, therefore, the accumulation of risk

and one's sensitivity to these risks that appear to interrupt normal development and contribute to the onset and maintenance of problem behavior (Jenson & Fraser, 2006; Rutter, 2001).

This developmental model highlights the importance of considering an individual's environmental context when postulating about problem behaviors, such as aggression and peer victimization. From a feminist perspective, girls' development must be considered within a community or societal context that promotes patriarchal norms and, therefore, rigid adherence to certain standards of femininity (Brown, 2003; Impett et al., 2006; Miller & Scholnick, 2000; Tolman et al., 2006). When describing aggressive behavior among girls, this unique developmental context must inform postulations about the causes, correlates, and consequences of these behaviors. As such, the following review describes the known types, functions, causes, correlates, and consequences of aggression and peer victimization among girls. The discussion of aggression and peer victimization is then situated within a feminist or female perspective. The intersection between our understanding of aggression, peer victimization, and feminist theory provides justification for the guiding research questions and hypotheses in the present study.

Aggression and Peer Victimization among Girls

Although substantial research has been conducted on physical aggression among boys, less research has documented specific developmental trajectories for aggressive girls. As such, most theoretical models describing aggression are based on boys rather than girls. A common approach to date for understanding aggression among girls has largely been to apply a male-based perspective to the experiences of girls. While this approach has led to a greater understanding of risk factors associated with aggressive behavior among both genders, it fails to capture the unique developmental context of girls. Prominent feminist authors and researchers studying girls' aggression suggest that the ways in which girls are socialized about prevailing

norms of femininity offer a distinct perspective of aggression and peer victimization and provide a more appropriate context for understanding why some girls become aggressive while others do not (Brown, 2003; Crick & Rose, 2000; McKnight & Putallaz, 2005; Pepler & Craig, 2005).

In the following sections, critical aspects of aggression and violence are delineated and used to illuminate the unique features of girls' aggression and experiences with peer victimization. Included in this discussion are: 1) different forms and functions of aggression, and consequently, peer victimization; 2) gender differences in aggressive tendencies; 3) current knowledge of risk and protective factors associated with girls' aggressiveness and peer victimization; and 4) the consequences of these behaviors on girls' development.

Forms and Functions of Aggressive Behavior and Peer Victimization

Critical to the definition of aggression are two primary features: 1) harm and injury; and 2) intent and motivation (Gendreau & Archer, 2005). Harm or injury to another person, either physical or psychological in nature, is the principal indicator that an aggressive act has taken place (Gendreau & Archer, 2005). Simply, aggression has been defined as "the delivery of noxious or painful stimuli to another individual (Buss, 1961) or as a response resulting in injury (Rule, 1974) or as 'damage or destruction of some goal entity' (Moyer, 1968)" (Gendreau & Archer, 2005, p. 31). Some explanatory models of aggression have emphasized the cognitive or motivational precursor to aggressive behavior (Gendreau & Archer, 2005). If injury or harm to another person was the primary goal of the aggressive act with pleasure or satisfaction being the main reward, it was labeled *hostile* (Gendreau & Archer, 2005) or *reactive* aggression (Dodge, 1991; Dodge & Coie, 1987; Little et al., 2003). If the aggressive act is intended to achieve nonaggressive goals or self-serving outcomes, such as getting attention and attaining an object or resource, it is labeled as *proactive* (Dodge, 1991; Dodge & Coie, 1987) or *instrumental* aggression (Gendreau & Archer,

2005; Little, et al., 2003). Further distinction has been made by dividing aggression into personally motivated and socially motivated behaviors (Gendreau & Archer, 2005). Personally motivated aggression intends to acquire a reward through inflicting injury; whereas, socially motivated aggression aims to achieve a social advantage (Gendreau & Archer, 2005).

Traditionally, the study of aggression has focused on physical behaviors, such as hitting, kicking, or physical intimidation. However, in recent years, researchers have identified a different form of aggressive behavior, known as relational aggression that is hypothesized to be more salient for girls. Importantly, relational aggression has begun to permeate the literature on aggressive behavior among girls over the last 20 years.

Overt Aggression. Overt aggression is generally defined as verbal and physical behaviors directed at individuals with the intention to physically harm or threaten them (Little et al., 2003; Olweus, 1993). Specific behaviors include hitting, kicking, pushing, or by the expression of physical intimidation, threats and insults directed at individuals with the intention of physical harm (Gendreau & Archer, 2005; Little et al., 2003; Olweus, 1993).

Overt, Physical, or Physical Aggression. On-going debates in the literature can be found regarding the labeling and conceptual distinctions of physical forms of aggression (Little et al., 2003), including direct, overt, physical, and verbal aggression. One primary way to distinguish between these labels is whether verbal attacks and threats are included in the definition along with physical attacks and intimidation. Commonly, the terms direct and overt include verbal and physical behaviors in the definition; whereas, the terms physical and verbal distinguish between these two forms of behavior (Gendreau & Archer, 2005; Little et al., 2003). Some authors suggest that the labels, direct and overt, can be used interchangeably as they are essentially equivalent in their definitions (Crick, 1996; Gendreau & Archer, 2005). Given the measurement tool (Little et al., 2003)

selected for this study, overt aggression will be the term used to describe physical and verbal forms of aggression as it encompasses all behaviors that are directed at an individual with the intention of physical harm.

Relational Aggression. Over the last 20 years, new trends have emerged in the study of aggression to include indirect or covert forms (Crick & Grotpeter, 1995; Galen & Underwood, 1997; Lagerspetz et al., 1988; Paquette & Underwood, 1999; Xie et al., 2002). Relational aggression is characterized by using relationships as the primary means to inflict harm, employing direct confrontational or indirect non-confrontational tactics, and using nonverbal attacks (Putallaz et al., 2004). More specifically, relational aggression is described as: talking about others (gossiping, breaking confidences), exclusionary behaviors (ignoring, ostracizing), harassment (prank phone calls, note writing), and nonverbal aggression (dirty looks, gestures) (Owens, Shute, & Slee, 2000; Underwood, 2003).

Indirect, Social or Relational Aggression. In the literature, three terms have been presented to describe this covert form of aggression: indirect (Lagerspetz et al., 1988; Owens et al., 2000), social (Galen & Underwood, 1997; Paquette & Underwood, 1999; Xie et al., 2002), and relational (Crick & Grotpeter, 1995; Crick, Bigbee, & Howes, 1996). As some of the behaviors described above include direct forms of aggression (i.e. exclusionary behaviors – telling someone you will no longer be his/her friend), indirect does not fully capture the extent of this behavior (Underwood, 2003). The primary difference between social and relational as described by Galen and Underwood (1997), and more specifically by Underwood (2003), is that the definition of social aggression includes facial expressions and body language, whereas relational aggression primarily uses threats to withdraw a friendship to get one's way or social exclusion to retaliate against a peer (Crick et al., 1996). However, the use of facial expressions or body language does not preclude the

use of the term relational to describe this behavior. Since relationships are the primary "vehicle of harm…" in this form of aggression, the term relational aggression best describes this phenomenon (Putallaz et al., 2004, p. 111-112) and will be used in this study.

Perceptions of Relational Aggression. Initially, some debate occurred over whether relationally aggressive tactics could be considered a legitimate form of aggression as defined by the use of anger and the intent to harm or hurt. Findings from several studies (Crick et al., 1996; Crick & Grotpeter, 1995; Galen & Underwood, 1997) offer evidence that relational aggression is distinct from overt aggression and can be considered a hurtful or harmful behavior. For example, Crick and Grotpeter (1995) propose that relational aggression is related but distinct from overt aggression. Using a sample of 491 third through sixth grade students, their results reveal that relational aggression is distinct from overt aggression and that it is an intentional behavior used to hurt or harm a victim. Furthermore, Crick and colleagues (1996) conducted two studies to establish whether children associated anger with relational aggression and subsequently to determine whether children associated intent to harm with relational aggression. Both studies included measures to assess normative beliefs across age and gender. In samples of youth in third through sixth grades, Crick et al. (1996) found that a substantial number of both boys and girls perceived relational aggression as associated with anger and with the intent to harm or hurt. Both boys and girls viewed relational aggression as normative, but the finding was more significant for girls. Relational aggression, particularly social exclusion, was more common in older girls; specifically, it became more frequent in peer conflicts as girls moved from middle childhood to adolescence.

Functions of Aggression. According to social-information processing or social-cognitive models, children's social behavior is "a function of sequential steps of processing, including encoding of social cues, interpretation of social cues, clarification of goals, response access or

construction, response decision, and behavioral enactment" (Crick & Dodge, 1996, p. 993). Based on these processing steps, children who use aggressive behavior may have deficits in either the interpretation or response decision steps (Crick & Dodge, 1996).

Initially, in an attempt to illuminate the multi-dimensional nature of aggressive behavior, Dodge and Coie (1987) differentiated between two distinct functions of aggression: reactive and proactive (or instrumental). These distinctions appear to hold true for both overt and relational aggression (Little et al., 2003a) and are based on differences in social information processing mechanisms (Crick & Dodge, 1996; Dodge & Coie, 1987). Dodge and Coie (1987) suggest that the propensity to overly attribute hostile intent to others is more closely related to reactive aggression rather than to proactive aggression. Further, Crick and Dodge (1996) hypothesized that reactive aggression points to deficits in interpretation; whereas proactive aggression suggests problems with response decisions.

Reactive aggression is defined as aggression that occurs in angry defense to provocation (Little et al., 2003) and is rooted in the frustration-anger theory of aggression as suggested by Dollard, Doob, Miller, Mowrer and Sears (1939, as cited in Vitaro & Brendgen, 2005). More specifically, reactive aggression is characterized as an "impulsive, negatively valenced act" exhibited in response to a perceived or actual threat or provocation (Gendreau & Archer, 2005, p. 36). Several synonyms used to describe reactive aggression include "defensive," "angry," "emotional," and "retaliatory" (Vitaro & Brendgen, 2005, p. 179). Interestingly, reactive aggression typically has less to do with the actual contextual stimuli, but rather is connected to the perception that the individual has of the situation or context (Gendreau & Archer, 2005; Vitaro & Brendgen, 2005). Studies have suggested that reactive aggression is linked to hostile attributional biases, or interpretation problems, as children react in a hostile manner to ambiguous provocations – they

may attribute malicious intent to a peer's provocation regardless of the true intention of the peer's behaviors (Crick & Dodge, 1996; Dodge & Coie, 1987).

Conversely, proactive or instrumental aggression is defined as aggression that is self-serving to achieve a particular social goal (Little et al., 2003). It is also associated with a social learning model (Bandura, 1973) of aggression, which suggests that behavior is governed by positive or negative reinforcement (Vitaro & Brendgen, 2005). According to this perspective, instrumental aggression is theorized to be driven by anticipated rewards such as getting attention, achieving a particular social goal or attaining some object or resource (Gendreau & Archer, 2005; Little et al., 2003; Vitaro & Brendgen, 2005). Suggested synonyms for instrumental aggression include "offensive" and "predatory" (Vitaro & Brendgen, 2005, p. 179). Typically, it is more controlled and premeditated and elicits less of an emotional reaction (Gendreau & Archer, 2005). Proactive aggression is theorized to involve response decision deficits because children attempt to achieve a particular goal by engaging in aggressive behavior. When making response decisions, children assess possible behavioral responses to a social situation according to the potential outcomes produced by the response (Crick & Dodge, 1996). Because they evaluate aggressive behaviors as producing positive outcomes, they feel more confident in using aggressive tactics to achieve a particular social goal (Crick & Dodge, 1996).

The underlying social-cognitive and social-informational processes are different for these two functions of aggression. Therefore, reactive and instrumental aggressive behaviors produce distinct externalizing and internalizing consequences for the aggressors and their victims. For example, reactive aggression, due to its association with hostile attributional biases, is related to peer rejection and low self-control (Little et al., 2003). Additionally, reactively aggressive children tend to experience more family conflict and display more temperament issues because they are

typically more excitable and impulsive (Vitaro & Brendgen, 2005). Conversely, instrumental aggression is associated with other forms of delinquent behavior as well as peer victimization (Little et al., 2003). In some cases, instrumental aggression has been linked to positive outcomes, such as leadership skill and social competence (Little et al., 2003). Furthermore, instrumentally aggressive children tend to experience more positive family interactions and less parental monitoring than their reactively aggressive and nonagggressive counterparts (Vitaro & Brendgen, 2005). In sum, reactively aggressive children appear to be at greater risk for peer rejection and family dysfunctions; while, instrumentally aggressive children appear to be at greater risk for externalizing problems such as delinquent behavior and criminality (Little et al., 2003; Vitaro & Brendgen, 2005).

Assessing both the forms and the functions of aggression provides a unique examination and consideration of the complexity of aggressive conduct. Differential socialization practices, particularly from gender norms, appear to contribute to gender differences in aggression and victimization (Zahn-Waxler & Polanichka, 2004). Therefore, examining the function of aggression may be particularly useful in understanding why girls become aggressive, and consequently how victims respond to these related, yet distinct forms and functions of aggression.

Peer Victimization. Peer victimization is a direct consequence of aggressive behavior. Olweus (1993, 2001) identifies several key elements in his definition of victimization: intentionality, power differential, and repetition. Specifically, Olweus (2001) defines victimization as “a student is being bullied or victimized when he or she is exposed, repeatedly over time, to negative actions on the part of one or more other students” (p. 5-6). This definition indicates that a victim is subjected to intentional harassment or aggressive acts repeatedly over time. This important feature of peer victimization, its chronicity, suggests that the impact of being victimized may differ based on its

duration; therefore youth are at greater risk for maladjustment the longer victimization persists (Kochenderfer-Ladd & Ladd, 2001). Peer victimization also implies a power differential between the aggressor and victim – the aggressor exerts actual or perceived power over a weaker victim who struggles defending him- or herself (Olweus, 2001).

Brock and colleagues suggest that perceptions, damage to status or social relationships, and provoked and unprovoked aggression are additional considerations for defining peer victimization (Brock, Nickerson, O'Malley, & Chang, 2006). The way in which someone perceives an experience influences their response and reaction to it; therefore, if a girl perceives that she has been victimized, she will interpret the aggressive act negatively. Conversely, if she does not perceive the event as a severe incident, she may not experience the same level of distress or characterize the event as victimization (Brock et al., 2006). Furthermore, the definition of victimization must include the aggressor's intent to damage someone's social status and/or relationships and to inflict physical or psychological harm. Lastly, researchers in recent years have placed greater emphasis on youth who are victims yet also engage in aggression (Brock et al., 2006; Haynie et al., 2001; Marini et al., 2006; Unnever, 2005). These youths have been labeled as aggressive or provocative victims (Brock et al., 2006; Unnever, 2005) or as bully-victims (Haynie et al., 2001; Marini et al., 2006; Solberg, Olweus & Endresen, 2007). The notion promoted by Brock et al. (2006) and Olweus (2001) is that, while some students (labeled as passive victims) are victimized by unprovoked aggressive behaviors, other youth create conditions that subsequently lead to their victimization, specifically by being aggressive themselves.

Peer victimization is highly stable across middle childhood and early adolescence (Paul &. Cillessen, 2003) and carries significant individual and social consequences for children and youth. Understanding factors associated with peer victimization is an important avenue for developing

appropriate prevention and intervention strategies. Interesting gender differences in aggressive behavior, described below, indicate that girls and boys may experience peer victimization differently. The following section details these gender differences and justifies the need to examine the specific features and functions of aggressive behavior among girls and their unique experiences with peer victimization.

Important Gender Differences in Aggression and Peer Victimization

The evidence is somewhat contradictory regarding whether girls display increased physical aggression and violence. Although arrests rates for girls have increased steadily in the past two decades relative to boys, girls continue to account for significantly less of the delinquency population (Snyder & Sickmund, 2006). This suggests that boys demonstrate higher rates of overt aggression, violence, and delinquency, which is consistently supported by national data from the CDC's YRBSS and juvenile offender reports from the Office of Juvenile Justice and Delinquency Prevention.

Regardless, researchers have recently suggested that there are differences in patterns of aggression displayed by boys and girls and that these differences may account for gender differences found in aggressive behavior (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Crick & Grotpeter, 1995; Galen & Underwood, 1997; Lagerspetz et al., 1988; Owens et al., 2000). For example, Lagerspetz et al. (1988) found that girls used indirect aggression more frequently than boys. The authors suggested that this was related to the tighter social structure of girls' peer networks and proposed that the tighter social structure lent itself to relational aggression as it was easier to exploit relationships to inflict harm on their peers. Bjorkqvist et al. (1992) furthered the research by Lagerspetz et al. (1988) by including boys and girls ages 8 and 15 years old, as well as the original sample of 11 to 12 year olds from the study in 1988. Results supported the findings

from the initial study as, in all age groups, indirect means of aggression were used more frequently by girls than boys, with findings more pronounced in the 11 and 15 year old age groups (Bjorkqvist et al., 1992).

Crick and Grotpeter (1995) investigated whether relational aggression was more commonly associated with girls' behaviors since, as they proposed, the form of aggression used would be primarily related to children's key social goals. They hypothesized that girls would be more likely than boys to use relational aggression, specifically by using behaviors that were intended to damage friendships or feelings of inclusion. Results revealed that relational aggression was significantly related to gender and social-psychological adjustment. Specifically, girls were significantly more likely than boys to display relational aggression and more likely to be nominated by their peers as relationally aggressive. By combining the results of the peer nominations with the scores from the loneliness, depression and social anxiety scales, Crick and Grotpeter (1995) determined that relational aggression was significantly associated with social-psychological maladjustment, with findings more striking for girls than boys.

Galen and Underwood (1997) examined gender differences in the frequency of relational aggression, predicting that girls would be more likely to report that relational aggression occurs within their peer networks. In a sample of fourth, seventh, and tenth grade boys and girls, results revealed no significant gender differences in the reported frequency of relationally aggressive acts in the fourth and seventh grades. Interestingly, both genders viewed relational aggression as equally hurtful when compared to physical aggression. Significant differences were found in the tenth grade sample with girls reporting higher rates of relational aggression in their same-gender friendships. These findings suggest that frequency of relationally aggressive behaviors increases and gender differences become more pronounced with age. These results also imply that gender

differences in relational aggression become more pronounced as youth get older, which occurs simultaneously when social relationships have increasing value as youth transition from middle childhood to late adolescence (Steinberg, 2005).

While the forms and functions of aggressive behavior are consistent among boys and girls, notable gender differences in the frequency of certain types of behavior as well as in the impact of these behaviors emerge and become increasingly pronounced with age. Therefore, it is critical to understand the unique features of girls' aggression that may contribute to these differences. As such, the following section details current knowledge of risk and protective factors associated with aggressiveness and peer victimization among girls. Furthermore, as suggested by prominent feminist authors and leading aggression researchers (Brown, 2003; Crick & Rose, 2000; McKnight & Putallaz, 2005; Pepler & Craig, 2005), this discussion is situated within their unique developmental context and takes into consideration distinct socialization patterns for girls.

Factors Associated with Aggressive Behavior and Peer Victimization among Girls

Pepler and Craig (2005) present a model for understanding the continuity of girls' aggressive behavior that is based on the interaction of risk and protective factors within an individual and her social contexts. They propose that aggression is associated with individual characteristics and environmental factors, such as family and peer contexts. Furthermore, they recognize that experiencing risk in one stage of development may lead to future experiences of risk in subsequent stages.

Individual risk factors include difficulties in the transition to puberty, early problems with hyperactivity and inattention, and social-cognitive factors, such as emotion regulation and social-information processing issues. Girls who are aggressive are more likely to begin puberty earlier than their nonaggressive peers (Connolly, Pepler, Craig, & Taradash, 2000). Girls who experience

early maturation may not be fully prepared to meet the social demands associated with the transition to puberty, such as romantic relationships, older mixed-gender peer groups, and increasing independence (Pepler & Craig, 2005). As a result, aggressive girls may enter adolescence with a heightened vulnerability to poor social and psychological outcomes. For example, aggressive girls who experience early transitions to puberty tend to associate with older, deviant peers in mixed-gender school settings (Caspi, Lynam, Moffitt, & Silva, 1993). Research has also shown that aggressive girls, based on self- and parent-report, demonstrate more inattention and hyperactivity than nonaggressive girls (Pepler & Craig, 2005). Pepler and Craig (2005) suggest that if a girl experiences increased difficulties managing her behavior and attention she may be particularly challenged in meeting social and academic demands and may in turn elicit negative responses from both peers and adults. These challenges lend themselves to the development of social-cognitive problems such as poor emotional regulation and social-information processing difficulties. These social-cognitive factors may lead to negative perceptions by others in their social context, which inadvertently reinforces or exacerbates the aggressive behavior (Crick & Dodge, 1996). Additionally, as most girls are socialized to believe that aggression is not consistent with their gender roles and norms, social cognitions about gender-role expectations and perceived consequences of aggressive behavior may be a key determining factor in observed gender differences in aggressive behavior and important considerations when theorizing about girls' aggression (Pepler & Craig, 2005). In summary, individual factors, such as early maturation, inattention and hyperactivity, and social-cognitive factors, may trigger the emergence of strained social interactions for aggressive girls within their family and peer environments (Pepler & Craig, 2005).

Dysfunctional social interactions may exacerbate girls' aggressive behavior. Therefore, risk factors associated with the family and peer contexts are important determinants for understanding the persistence of aggression among girls. Within the family context, childhood maltreatment, family fragmentation, ineffective parenting practices, and insecure attachment contribute to increases in aggression among both genders. One of the most striking findings in research on girls involved in the juvenile justice system is the high rates of sexual abuse and other forms of maltreatment in their histories (Moretti et al., 2005; Pepler & Craig, 2005). In comparison to male offenders, female offenders are significantly more likely to report sexual and physical abuse (Odgers & Moretti, 2002). Moretti et al. (2005) report that the majority of violence committed by girls occurs within close, intimate relationships. As such, girls who experience childhood maltreatment may associate violence with their personal relationships and may use aggressive or violent behavior to foster interpersonal connections (Moretti et al., 2005). In addition to abuse and trauma, family dysfunction and parental problems with crime and mental health issues are key risk factors for aggression among girls (Moretti et al., 2005). Webster-Stratton (1996) found that maternal depression, negative interactions between parents, and the level of stress in the father's life were highly predictive of externalizing problems, including aggression and early conduct problems, among girls, age four to seven, but was not predictive of boys' externalizing problems. Furthermore, ineffective parenting styles have been shown to increase aggressive behavior among girls and boys (Pepler & Craig, 2005). For example, based on self-report data, parents of aggressive girls and boys indicate more ineffective parenting strategies, such as overly harsh physical punishment and highly conflictual parent-child interactions, than parents of nonaggressive children (Pepler & Craig, 2005). Ineffective parenting has been theorized to carry more significant consequences for girls in comparison to boys because of differential socialization patterns (Moretti

et al., 2005; Pepler & Craig, 2005). Because girls are more likely to be socialized around the importance of relationships (Brown, 2003; Impett et al., 2006; Tolman et al., 2006; Tolman & Porche, 2000), girls may experience more detrimental long-term effects of poor parent-child interactional problems. As a result of ineffective parenting, childhood maltreatment, and family dysfunction, girls may experience poor or insecure attachments to their parents that reflect the instability of these primary relationships and place them at increased risk for aggressive behavior and further victimization by others (Moretti et al., 2005).

The peer group and family factors assert significant influences on girls' development during childhood and adolescence (Pepler & Craig, 2005). Peer relations function in positive and negative ways. Interactions with peers can create a sense of belonging and connection; however, they can also serve as a source for conflict, victimization, and alienation (Pepler & Craig, 2005). Peer rejection is associated with aggressive behavior among boys and girls (Pepler & Craig, 2005). Aggressive youth typically experience greater peer rejection, which only appears to exacerbate their own aggressive behavior (Gifford-Smith & Brownell, 2003). Given the significant differences in peer interactions among girls and boys, gender differences not only in the expression of aggression but also in the consequences of these behaviors follow (Pepler & Craig, 2005). For example, Serbin and her colleagues (1993; as cited in Pepler & Craig, 2005) found that aggressive boys were highly involved in playground activities despite their aggressive behavior. Conversely, aggressive girls were disliked by their peers and experienced greater peer rejection and isolation than aggressive boys on the playground (Serbin, Marchessault, McAffer, Peters, & Schwartzmann, 1993 as cited in Pepler & Craig, 2005). Research also suggests that aggressive youth are more likely to associate with other aggressive and deviant peers (Dishion, McCord, & Poulin, 1999; Juvonen & Ho, 2008; Moretti et al., 2005; Pepler & Craig, 2005; Werner & Crick, 2004). For

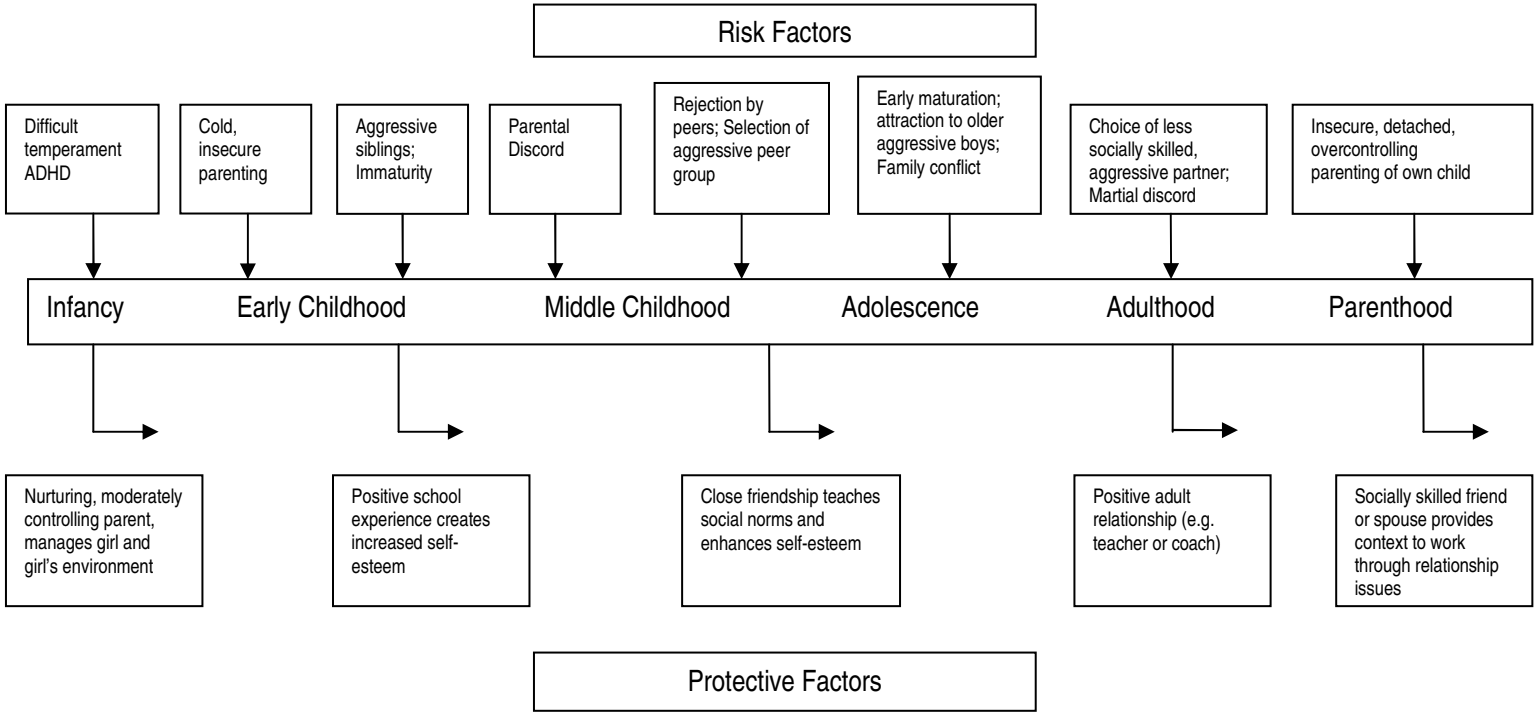
example, Werner and Crick (2004) found that engagement in aggressive behavior was predictive of affiliation with deviant peers who also engaged in aggressive and other delinquent behavior. Additionally, Juvonen and Ho (2008) found that associating with aggressive peers helped in part to explain increased antisocial and aggressive behavior among girls in middle school. Therefore, it is well-documented from peer, parent, and self-reports that aggressive girls experience significantly greater peer conflicts, less positive peer interactions, higher rates of peer victimization, more associations with deviant peers, and are less socially preferred than nonaggressive girls (Juvonen & Ho, 2008; Pepler & Craig, 2005; Zimmer-Gemback, Geiger, & Crick, 2005).

Literature on aggressive behavior among youth is disproportionately focused on risk factors, yet researchers recognize the importance of protective factors in mitigating the likelihood of the onset and persistence of aggression (Moretti et al., 2005). Although less is known about protective factors key to the study of aggression, some authors suggest that there may be significant gender differences in these factors (Moretti et al., 2005). As girls may be more influenced by parent-child interactions and the development of positive personal relationships (Moretti et al., 2005; Pepler & Craig, 2005), it follows that more positive and supportive relationships with parents and others may be important protective factors for girls in reducing risk for violence and aggression (Moretti et al., 2005). For example, Kim-Cohen, Moffitt, Caspi, and Taylor (2004) found that maternal warmth was a primary protective factor in promoting positive adjustment among girls despite their low-income status. Furthermore, Bender and Losel (1997) found that having a moderately prosocial boyfriend also served as a protective factor for highly aggressive girls, suggesting that this kind of personal relationship may reduce girls' involvement in aggressive and antisocial behavior.

The Social Development Model, developed by Catalano and Hawkins (1996), asserts that prosocial and antisocial developmental trajectories include the similar socialization processes. According to the this model, primary socialization processes center around perceived opportunities for involvement in and interaction with others, the skills needed to successfully participate and interact with others, and the perceived reinforcement for the engagement in activities and interactions with others (Catalano & Hawkins, 1996). When these processes are consistent and stable, a social bond develops between the individual and socializing entity. Therefore, the behavior of an individual (whether prosocial or antisocial) depends on the predominant behaviors, norms, and values of the socializing unit to which the individual is bonded (Catalano & Hawkins, 1996). Consequently, it appears that, when girls are bonded to prosocial parents and peers, their behavior is more likely to be positive.

Based on the risk and protective factors described above, McKnight and Putallaz (2005) proposed a specific developmental model for aggressive girls. They incorporated previous frameworks presented for conduct problems in boys and incorporating research from the last 20 years on known correlates of aggressive behavior in girls and boys (see Lahey, Moffitt, & Caspi, 2003, Pepler, Madsen, Webster, & Levene, 2005, and Putallaz & Bierman, 2004 for extensive reviews). Furthermore, they acknowledge the importance of relationships for girls and thus situate the model in the experiences, concerns, and pressures specifically related to the girls' development. *Figure 1* depicts the interaction of risk and protective factors across different developmental stages in the continuity of aggressiveness in girls' behavior. The top portion describes specific risk factors that contribute to aggression. The bottom segment illustrates protective factors shown to mitigate or diminish the likelihood of aggressive behavior.

Figure 1: Pattern of Risk and Protection for Examining the Continuity of Aggression among Girls



(McKnight & Putallaz, 2005, p. 49)

As indicated by Pepler and Craig (2005) and Moretti and colleagues (2005), the interaction between risk and protective factors influences development and creates a context for understanding why certain girls become aggressive. McKnight and Putallaz (2005) highlight the influence of gender socialization on female development in their model of girls' aggression, which provides a more holistic and context-specific understanding of factors likely to increase or mitigate the probability of aggressive behavior among girls.

Interestingly, Nichols et al. (2006) found few gender differences in risk and protective factors related to the developmental trajectories for overt aggression and delinquent behavior, indicating more similarities than differences among boys and girls. Similarly, Martino, Ellickson, Klein, McCaffrey, and Edelen (2008) found that parental supervision, deviant peer association, academic orientation, impulsivity, and emotional distress were significantly associated with physically aggressive adolescent girls' and boys' developmental trajectories. These findings imply that the underlying processes involved in the onset and maintenance of physical aggression in adolescence may operate similarly in boys and girls (Martino et al., 2008; Nichols et al., 2006).

A potential explanation for this finding, stemming from assertions made by Brown (2003), is that girls may engage in overt aggression and delinquency to overcome or re-negotiate certain norms of femininity related to the expression of anger and participation in physical forms of aggression most often reserved for boys. Gender differences in risk and protective traits as well as suggested similarities among overtly aggressive boys and girls support the need to examine the unique socialization practices associated with norms of gender when postulating about girls' engagement in different forms of aggressive behavior.

Dynamics of Peer Victimization. Researchers have suggested that the determinants of peer victimization include individual, peer, and family influences (Brock et al., 2006; Perry, Hodges,

& Egan, 2001). Although somewhat similar to the risks factors associated with girls' aggression, noteworthy differences exist. Individual traits that may increase the likelihood of peer victimization include physical attributes, behavioral characteristics, and social-cognitive factors (Perry et al., 2001). Often, children and youth are teased for having physical attributes, such as obesity, wearing glasses, speech problems, clumsiness, and awkwardness, although Perry et al. (2001) suggest that these are less likely causes of victimization in comparison to other important correlates of peer victimization. The most likely physical attribute to increase the likelihood of victimization was physical weakness, particularly for boys (Perry et al., 2001). Furthermore, children and youth may be more likely to be victimized when they exhibit behavioral problems, such as hyperactivity and inattention or social withdrawal, anxiety and depression (Brock et al., 2006, Perry et al., 2001). Youth who engage instrumental aggression are at greater risk for peer victimization (Little et al., 2003). These youth, labeled aggressive or provocative victims, may irritate peers with attention-seeking, disruptive, or restless behavior, which may increase the likelihood of being victimized (Perry et al., 2001). Futhermore, Paul and Cillessen (2003) found that male victims in their study were more likely to report high rates of disruptive behavior, whereas female victims scored higher on anxiety and social withdrawal. They concluded that the strongest predictor of victimization was disruptive behavior for boys and anxious-withdrawn behavior for girls (Paul & Cillessen, 2003). Lastly, social-cognitive factors that may increase the probability of peer victimization include emotion regulation problems and social information processing issues, such as hostile attributional bias (Perry et al., 2001).

Family influences include attachment issues and ineffective parenting practices (Brock et al., 2006; Perry et al., 2001). For example, when children are either anxiously or insecurely attached to their parents, they are more likely to be victimized in comparison to children with

secure parental attachment (Brock et al., 2006; Perry et al., 2001). Enmeshment with parents, where parent-child interactions are characterized by emotional intensity or when parents are overly protective, also appears to increase the likelihood of victimization (Brock et al., 2006). Three forms of parenting practices tend to place children at risk for peer victimization. Overprotective parenting, which may undermine positive psychological development by lowering child's sense of self-efficacy and limit their ability to effectively manage conflict, has been shown to be related to victimization (Perry et al., 2001). Over-controlling parenting, where a parent constrains, invalidates, or manipulates, may impede a child's ability to individuate and also negatively impact his/her psychological development. This may interfere with a child's confidence in handling peer conflict and may also contribute to low self-esteem and internalizing difficulties, such as anxiety and depression (Perry et al., 2001). Lastly, coercive parenting, including verbal attacks, sarcasm, bossiness, and power-based discipline practices, may be particularly problematic for girls (Perry et al., 2001). Maternal threat of rejection and coercion has been shown to be associated with a girl's risk for victimization (Brock et al., 2006).

Peer factors are also important considerations for understanding why certain individuals may be a greater risk for victimization. Research has found that victims report having fewer friends, less peer relationship quality, and feel less liked by their peers than children who are not victimized (Smith, Shu, & Madsen, 2001). Furthermore, victims report experiencing greater peer rejection and are more likely to associate with other rejected children (Perry et al., 2001). Therefore, issues around the type of friendships one has as well as the peer group with which one associates contribute to an increased risk of victimization (Perry et al., 2001). Positive peer relationships and peer sociability have been found to be highly protective for reducing the risk of peer victimization (Brock et al., 2006; Paul & Cillessen, 2003).

Consequences of Aggressive Behavior and Peer Victimization

Research indicates that overt and relational aggression and, as a result , peer victimization carry significant individual and social consequences for both the perpetrators and the victims, including academic difficulties, social challenges, and emotional problems (Brock et al., 2006; Casey-Cannon, Hayward, & Gowen, 2001; Crick & Bigbee, 1998; Crick & Grotpeter, 1995; Little et al., 2003; Owens et al., 2000; Paquette & Underwood, 1999; Paul & Cillessen, 2003; Pepler & Craig, 2005; Steffensmeier et al., 2005; Storch & Masia-Warner, 2004; Wangby, Bergman, & Magnusson, 1999). These consequences are reviewed below.

Academic Difficulties. The relationship between engagement in aggressive behavior and poor academic outcomes is well-documented for boys; however, research has also supported the link between aggression and school problems among girls (Pepler & Craig, 2005). For example, Wangby et al. (1999) found a strong and stable relationship between girls' conduct problems, including aggressive behavior and hyperactivity, and poor academic outcomes, such as low school commitment and poor concentration, in a sample of girls ages 10 to 13. In contrast, Xie et al. (2002) conducted a study with fourth and seventh grade boys and girls to determine whether relational aggression was associated with current and future academic difficulties. Findings revealed that relational aggression was not associated with current or future maladjustment, and instead, indicated higher social intelligence and academic performance. Furthermore, Pulkkinen (1992, as cited in Pepler & Craig, 2005) found fewer academic problems for girls who engaged verbal or relational aggression yet significantly higher rates of poor school outcomes for physically aggressive girls. Physically aggressive girls reported less school commitment, poorer academic performance, and less overall education, suggesting truancy and dropout may also be important academic problems to consider for aggressive girls. Pepler and Craig (2005) suggest that truancy

and dropout, while critical developmental outcomes to understand for aggressive girls, have received less attention in the literature on girls' aggression and victimization. Further, they suggest that, due to the connection between hyperactivity, inattention, and aggressive behavior among girls, understanding the cumulative effect of risk on academic outcomes is a particularly important area for future research.

Social and Emotional Problems. Many studies examining aggressive behavior and peer victimization among girls describe significant social and emotional consequences of these behaviors on girls' development (Brock et al., 2006; Casey-Cannon et al., 2001; Crick & Bigbee, 1998; Crick & Grotpeter, 1995; Little et al., 2003; Owens et al., 2000; Paquette & Underwood, 1999; Paul & Cillessen, 2003; Pepler & Craig, 2005; Steffensmeier et al., 2005; Storch & Masia-Warner, 2004). Most importantly, as found by Pepler and Craig (2005), aggressive and victimized girls report significantly lower self-esteem than their nonaggressive counterparts. Lower self-esteem then contributes to, and consequently underscores, further social and emotional problems experienced by aggressive and victimized girls (Pepler & Craig, 2005), including peer rejection, depression, and anxiety.

Additional studies suggest that victimized girls bear significant adverse consequences (Casey-Cannon et al., 2001; Paul & Cillessen, 2003; Rigby, 2001). For example, Paul and Cillessen (2003) found that victimized girls reported higher levels of depression, anxiety, negative self-perceptions, and self-reported disruptive behavior than any other female or male group in the study. Furthermore, Casey-Cannon et al. (2001) found increased levels of sadness and anger among verbally and relationally victimized girls as well as worse self-concepts, particularly when girls were teased about their personal characteristics or when perceived negative aspects of themselves were confirmed by others. Lastly, Rigby (2001) suggests that more extreme

consequences of peer victimization include suicidal ideation and behavior. Although suicidal behavior has multiple determinants, Rigby summarizes evidence supporting the connection between peer victimization and suicide. For example, in his recent study on Australian adolescents, peer victimization was significantly associated with increased suicidal thoughts even after controlling for levels of social support (Rigby, 2001). He also suggests that peer victimization is related to other forms of short-term and long-term psychological distress, including acute anxiety, severe somatic symptoms, increased social dysfunctions, and clinical depression.

Storch and Masia-Warner (2004) found interesting differences in outcomes for relational victims when comparing overt victims and girls victimized by both forms of aggressive behavior. In a sample of 561 female adolescents in ninth to eleventh grades (82.5% Caucasian), they reported that relational victims and overt victims experienced greater fears of negative evaluation by their peers as well as increased rates of social avoidance. Further, they found that relational victims and both overt/relational victims reported higher levels of social anxiety and loneliness in comparison to overt victims and non-victims. Interestingly, prosocial behaviors from peers mitigated the relationship between relational victimization and loneliness, suggesting that prosocial peer relationships may be a critical aspect for understanding girls' adjustment (Storch & Masia-Warner, 2004).

Differences in outcomes have been found for youth who engage in overt aggression in comparison to relational aggression. van der Wal and colleagues (van der Wal, de Wit, & Hirasing, 2003) found that youth who engaged in overt aggression were at significantly higher risk for later delinquency than youth who used relationally aggressive tactics. Similarly, Herrenkohl and associates found that youth who participated in relational aggression scored lower than physically

aggressive youth on measures of individual, family, and peer risk factors (Herrenkohl, McMorris, Catalano, Abbott, Hemphill, & Toumbourou, 2007).

However, findings from several investigations (Crick et al., 1996; Crick & Grotpeter, 1995; Galen & Underwood, 1997) offer evidence that relational aggression is a hurtful or harmful behavior. As such, specific studies have recently focused on the impact of relational aggression and victimization on girls' development. Crick and Grotpeter (1995) found that relational aggression was associated with increased levels of loneliness, depression, and social anxiety, therefore negatively impacting social-psychological adjustment. Furthermore, Crick and Bigbee (1998) found that victims of relational aggression reported moderately high levels of emotional distress and loneliness. Additional analyses indicated that victims experienced increased problems with self-restraint, such as difficulty restraining anger and controlling impulsivity, which contributed to continued victimization.

Although using a relatively small sample (N=76), Paquette and Underwood (1999) reported that girls were more likely than boys to remember specific incidents of relational aggression and reported increased negative feelings and thoughts about the experience as compared to boys. After being victimized, girls reported that they were sad and surprised, and felt worse about themselves as compared to boys. In a qualitative study conducted by Owens et al. (2000), significant psychological consequences were found for victims of relational aggression: confusion, denial, pain, desire to escape, fear, paranoia, and damaging negative self-talk, which caused feelings of rejection, loneliness, alienation, and isolation. In the most severe cases, these feelings contributed to thoughts of suicide. Particularly for girls, social isolation from peers is significantly associated with thoughts of suicide (Bearman & Moody, 2004).

Sometimes, in response to being a victim of aggression, girls react by becoming aggressive, thereby turning into bullies themselves. According to a recent study by Pepler, Craig, Yuile, and Connolly (2004), girls who were both aggressive and victimized reported higher rates of alienation than boys as well as less trust, affection, and commitment in their relationships. In early to middle adolescence, aggressive girls were more likely to report poor quality relationships with their friends. In high school romantic relationships, students who reported higher levels of aggression, to establish control and gain power within these relationship, reported less commitment, which was proposed to lead to later problems in the development of adult relationships (Pepler et al., 2004).

Evidence suggests that aggression, and consequently victimization, negatively impact academic functioning and contributes to worse self-concepts, increased feelings of loneliness, greater peer rejection, and more emotional distress. Thus, a critical need exists to understand the unique features of aggression and victimization among girls. By identifying specific risk factors, important contextual elements, and developmental paths for aggressive and victimized girls, effective prevention and intervention approaches can be developed as a way to mitigate the detrimental effects of these behaviors on girls' development. In order to successfully intervene and prevent aggression and peer victimization among girls, strategies must be situated within a female perspective and should include the unique developmental experiences of girls and women (Crick & Rose, 2000).

Gender Norm Ideology

Rooted in feminist theory, the female perspective proposes that gender is a significant individual characteristic that interacts with other characteristics (i.e. race and class) to structure relationships within society – between individuals and within groups (Rosser & Miller, 2000).

Gender also impacts development, particularly through gender socialization practices (Miller & Scholnick, 2000). The following section discusses: 1) gender socialization and prevailing norms of femininity; 2) the feminist developmental framework as the underlying theoretical basis of the present study; and 3) two distinct features of femininity ideology – having an inauthentic self in relationships and having an objectified relationship with one's own body – as important considerations for girls' engagement in aggression and experiences with peer victimization.

Gender Socialization

Most girls possess a well developed interpersonal orientation because they are typically socialized more than boys to value relationships with others and view their success in terms of relationships. This may foster interdependency as others are integrally connected to one's self (Zahn-Waxler & Polanichka, 2004). Social interaction for girls provides opportunities to form connections and to assess positions within social structure of the larger group, with inclusion and exclusion having significant interplay within these groups (Putallaz et al., 2004). Therefore, if inclusion is a primary goal for girls, social exclusion serves a strategic purpose because it provides a vehicle for creating group structure and establishing bonds through the exclusion of others (Putallaz et al., 2004).

Awareness of the influence of relationships on female socialization patterns is an important element in understanding the purpose and significance of aggression and victimization among girls. Also critical in understanding aggression and victimization among girls are other aspects of female socialization concerning the expression of anger. In early childhood mothers frequently disapprove of the expression of anger from their daughters while often encouraging it among male children (Zahn-Waxler & Polanichka, 2004). Additionally, mothers often tolerate anger and retaliation in response to another's anger for their sons, but discourage daughters from using anger

to resolve problems and instead encourage them to focus on restoring the relationship (Zahn-Waxler & Polanichka, 2004). Parents are also more likely to ignore or negate verbal assertions in girls, which can cause girls to mask their anger and other negative feelings (Zahn-Waxler & Polanichka, 2004). Underwood (2003) proposes that the socialization patterns of girls create cognitive dissonance as girls experience anger while simultaneously being reinforced to be nice. Because of these conflicting messages, girls attempt to regulate their emotions by engaging in aggressive behavior. In particular, through of relational aggression, girls may express anger in a way that reduces or eliminates the victim's ability to directly identify them or hold them accountable for their actions (Underwood, 2003).

Feminist Developmental Framework

The feminist developmental framework stems from a set of theories derived from a feminist perspective that describe ways in which girls' development is affected by, and responds to, patriarchal societal and cultural norms (Impett et al., 2006). This framework suggests that, in a patriarchal society, many girls experience pressure to behave in "feminine" ways in their relationships with others – by avoiding conflict, suppressing anger, and behaving nicely versus assertively – and in their relationships with their bodies – by managing their bodies to conform to predominant standards of beauty and attractiveness (Impett et al., 2006; Tolman et al., 2006).

Inauthentic Self in Relationships with Others. A feminist developmental perspective suggests that the experience and development of the self for girls is integrally connected to her personal relationships and is largely based on her ability to maintain these relationships (Impett et al., 2006). Particularly during adolescence, when peer relationships become increasingly important (Steinberg, 2005), the negotiation and maintenance of these relationships is of primary importance. One way girls may attempt to preserve relationships is to silence their authentic thoughts, needs,

and feelings, particularly as a strategy to reduce conflict and avoid the expression of anger (Impett et al., 2006). The construct, *inauthenticity in relationships* (Tolman & Porche, 2000), is realized when girls conceal their true thoughts and feelings, especially those seen as unfeminine, such as anger (Impett et al., 2006).

Objectified Relationship with One's Body. A feminist developmental framework also proposes that learning to live in a female body is a critical developmental aspect of adolescence, particularly with the onset of puberty occurring during this stage of development. The experience of the body for girls, according to this perspective, is greatly affected by societal and cultural norms about the commodification and objectification of the female form (Fredrickson & Roberts, 1997; Impett et al., 2006, Tolman & Porche, 2000). This may result in a preoccupation with one's own body whereby girls and women constantly survey and evaluate their physical appearance, creating a disembodying experience with ones' own body – becoming an object rather than the subject of their experiences (Fredrickson & Roberts, 1997; Tolman & Porche, 2000). This can be described as having *an objectified relationship with one's own body* and is realized through the disassociation with the body and the performance of feminine or "ladylike" physical movements (Impett et al., 2006).

Femininity Ideology

Tolman and Porche (2000) explored two negative aspects of femininity ideology in samples of female adolescents. As stated by the authors, feminist theory postulates that femininity ideology serves as a form of oppression for girls and women and is a fundamental element of patriarchy (Tolman & Porche, 2000). These oppressive ideologies are pervasive messages that persist through institutional structures and are promoted as 'reality,' which through internalization script the behavior of girls and women (Tolman & Porche, 2000). Through the development and

validation of the *Adolescent Femininity Ideology Scale* (AFIS) with a sample of 192 girls (42% White, 51% reported their mothers obtained a college degree or higher, mean age = 14 yrs old), the authors aimed to measure two distinct aspects of femininity ideology: inauthentic self in relationships with others and objectified relationship with one's body.

In subsequent research, the AFIS was used to establish relationships between femininity ideology and lower sexual and mental health. Impett et al. (2006) explored the relationship between femininity ideology and girls' sexual self-efficacy, including their ability to communicate their sexual needs and desires to their partners as well as to negotiate conceptive use. A total of 116 girls (62% White, over 50% reported their parents obtained a college degree or better), ages 16-19 (mean age = 13 yrs old), completed surveys pertaining to femininity ideology, sexual experiences, sexual self-efficacy, and protection behavior. Results showed strong associations between inauthenticity in relationships and body objectification and lower sexual self-efficacy, including less use of condoms (Impett et al., 2006). The authors discuss the significance of these findings in terms of preventing sexually transmitted infections and unwanted pregnancies, highlighting the importance of addressing these oppressive and detrimental ideologies in prevention strategies.

Tolman et al. (2006) examined the relationship among femininity ideology, self-esteem, and depression, hypothesizing that greater internalization of inauthenticity in relationships and body objectification is related to lower self-esteem and higher rates of depression. A total of 148 girls in eighth grade (52% White, 47% reported their mother obtained a college degree or better, mean age = 13.3 years) completed measures of femininity ideology, self-esteem, and depression. Using structural equation modeling, the results showed that body objectification, and to a lesser extent, inauthenticity in relationships, accounted for half the variance in depression and over two-

thirds of the variance in self-esteem (Tolman et al., 2006). These results suggest that components of the self appear to be influenced by the internalization of femininity ideology.

Femininity Ideology, Aggression, & Victimization

At the same time girls are learning to navigate the demands of femininity (Impett et al., 2006), they are under mounting social pressures as peer relationships, both same-gender and opposite-gender, become increasingly important (Steinberg, 2005). Aggression, and consequently victimization, can serve as an effective and powerful mechanism for establishing social structure and managing peer relationships (Putallaz et al., 2004; Underwood, 2003). Although several authors have recognized the connection between aggression, victimization, and gender socialization (Pepler & Craig, 2005; McKnight & Putallaz, 2005; Zahn-Waxler & Polanichka, 2004), Brown (2003) has most effectively connected, to date, feminist theoretical postulations about girls' development with their experiences with aggression and peer victimization. Accordingly, through her extensive qualitative work, Brown (2003) describes the experiences of girls with aggression and peer victimization, situated within a patriarchal society and girls' unique developmental context.

According to Brown (1998, 2003) and other feminist writers (Brown & Gilligan, 1992; Impett et al., 2006; Miller & Scholnick, 2000; Rosser & Miller, 2000; Tolman & Porche, 2000; Tolman et al., 2006), girls' development must be situated within a culture that perpetuates patriarchal norms and promotes adherence to feminine ideals. Messages promulgated throughout American society, largely based on White, middle-class values, suggest that girls must be or at least appear to be nice (Brown, 2003; Impett et al., 2006; Tolman & Porche, 2000; Tolman et al., 2006). Therefore, girls who internalize popular notions of femininity may feel compelled to hide the "bad" or "shameful" parts of themselves and their relationships. Girls, who due to race, ethnicity, social class, or sexual identity, "define femininity differently or experience being female as something

more active and direct and physical" may be placed at a disadvantage in terms of their access to socially constructed and constituted power (Brown, 2003, p. 6). Being subjected to the contradictory split between being "good" or being "bad" can threaten girls and their relationships, create division among girls, and separate them from the reality of their experiences – as suggested by Impett et al. (2006) and Tolman et al. (2006) – making them the object rather than the subject of their experiences. This spilt also gives rise to "girlfighting" as girls attempt to negotiate these contradictory demands by using aggressive tactics to create social structure and dictate access to power (Brown, 2003).

Brown (2003) suggests that the increased visibility of girls' aggression is a reflection of girls' attempts to regulate their experiences within this contradiction. She specifically theorizes that girls may engage in physical fighting as a way to access power and become the subject rather than the object of their own experiences. She questions, however, if girls who engage in physical fighting are overcoming these cultural standards of femininity or just becoming more like boys. Interestingly, although prominent female characters in the media kick-box, participate in marital arts, or fight along side with men, other aspects of feminine ideals are largely intact (Dowling, 2001). Again this creates a contradiction where girls are left with increasingly complex choices about adhering to certain demands of femininity while rejecting others. While the parameters have widened to a degree, the overall gender structure has stayed fundamentally the same – the available pathways to power are still largely connected to gaining male attention and acceptance, thereby perpetuating the inferior status of girls or female characteristics (Brown, 2003). For example, it has been suggested that the toughness or strength of female characters in contemporary media is commonly moderated by their femininity, which cultural norms relate to weakness (Brown, 2003; Dowling, 2001).

Key to these contradictions between being “good” or “bad” and “strong” or “unfeminine” is the idea that girls must betray themselves and other girls in order to access the power available to them in a patriarchal society. When girls internalize and automatically accept the divisions created in this culture “between good girls and sluts, schoolgirls and airheads, nice girls and bitches,” and when girls betray other girls to be popular or to gain male attention, they inadvertently perpetuate their own subordination and “become complicit in their own oppression” (Brown, 2003, p. 33).

Girls who go against such ideals create anxiety because they remind other girls of their own potential failure to “measure-up” (Brown, 2003). The pressure to conform can be immense as conformity can lead to important rewards – love, attention, friendship, and social power. Some girls in response to these pressures become inauthentic in their relationships with others (Impett et al., 2006; Tolman et al., 2006; Tolman & Porche, 2000) as they “struggle to improve, to adapt, to become shape-shifters, relational chameleons, female impersonators – pretending to be the kind of girls others seem to want” (Brown, 2003, p. 81).

It is understandable that girls are drawn to experiences that offer them power – it is the way in which girls respond to these experiences that can set the stage for aggression among girls. Girls can respond to the need for power in constructive ways through community with other girls or in destructive ways by creating divisions among girls. Because of this, the contradiction between the prevailing norms of femininity and girls’ lived experiences are sometimes managed through peer relationships. Girls depend on the development and maintenance of close, intimate friendships (Moretti et al., 2005; Pepler & Craig, 2005; Putallaz et al., 2004). However, girls can use these relationships to gain power through promoting a rigid conformity to the norms of femininity, threaten rejection and exclusion, and reinforce gender and racial stereotypes (Brown, 2003). Brown (2003) suggests that in a sexist culture it is safer and ultimately more advantageous

for girls to target other girls with their fears, anxieties, and anger rather than take it out on boys or on a culture that "denigrates, idealizes, and eroticizes qualities associated with femininity" (p. 6). She continues by stating that "girlfighting" is not a biological necessity nor a developmental stage but rather a protective strategy and a means for accessing power. Therefore aggressive behavior for girls may serve a specific strategic purpose.

This contradiction becomes more pronounced as young adolescent girls become increasingly aware of the differences between "the reality of their experiences, their thoughts and feelings…and the way girls should look, act, think, and feel if they want to be the right kind of girl" (Brown, 2003, p. 86). The pressure to conform to feminine ideals intensifies during early adolescence period when girls begin to think in increasingly complex ways (Brown, 2003; Impett et al., 2006). Therefore, girls are learning, through pressure to conform to specific feminine ideals, to view themselves as others see them, rather than to experience and feel authentically who they are. At this developmental stage, girls may experience themselves as objects rather than subjects of their own experiences. These experiences then contribute to inauthenticity in relationships with others and promote an objectified relationship with one's own body (Impett et al., 2006; Tolman et al., 2006; Tolman & Porche, 2000).

Furthermore, in early adolescence, gender-related expectations intensify as boys are pressed to behave in masculine ways and girls to act in accordance to conventional femininity standards (Impett et al., 2006). Brown (2003) suggests that boys and girls actively approve of gender-related expectations and police others for their conformity to these standards. She states that labeling others places individuals into "neat categories," which creates the "illusion of control and order in the midst of chaos" (Brown, 2003, p. 103). Therefore, targeting girls who fail to conform to these gender-related expectations creates an opportunity to ridicule their "otherness" by

gossiping, rejecting or teasing them – thereby creating a mechanism for girls to assess their own worth in comparison to others and assuage their fears about potentially failing to conform to these gender-role expectations. Girls may feel pressure to not be "too smart, too fat, too thin, too sexualized or sexually experienced, too angry, too full of themselves" – in essence too much of their own person (Brown, 2003, p. 103). Gilligan (1990, as cited in Brown, 2003; Gilligan, 1991) calls this a "crisis of connection" as the expectations and judgments from others make it increasingly difficult to maintain a sense of self rooted in authentic thoughts, feelings, and desires.

Interestingly, girls' peer relationships in early adolescence are not necessarily rooted in established hierarchies of power and privilege, but more often in "cycles of popularity" that can shift and change in unpredictable ways (Brown, 2003, p. 108). In particular for White, middle-class girls, adhering to these feminine ideals and, therefore, masking negative thoughts, feelings, and emotions are employed as "conscious self-protective strategies" (Brown, 2003, p. 109).

These feminine ideals and standards can vary across social contexts and depend on a girl's social location in terms of her race, ethnicity, class, and sexual identity. While no research to date has specifically explored differences in gender socialization and the internalization of feminine norms in largely minority or low-income samples, several investigators have noted interesting differences across race and ethnicity in patterns of play that would suggest these ideologies may be experienced differently by girls of color or of low-income status. Goodwin (1985, as cited in Brown, 2003), for example, noted that the negotiations and rules in children's games depended on the girls' race and ethnicity. She found differences in the patterns of play among African American, Latina, and White girls. African American girls tended to promote solidarity rather than competition; whereas Latina girls openly competed to win a game of hopscotch and bragged about their success. These results suggest that cultural differences are important to note and consider when

theorizing about girls' conflict negotiation and aggressive behavior. While these differences have been found across racial and ethnic groups in patterns of play, Brown (2003) suggests that there are commonalities across groups which illuminate the impact of gender socialization and its complex intersection with race, ethnicity, and class.

The Present Study

This review suggests that the literature on girls' aggression has given very little attention to girls' unique social context, the options available to girls to access power and privilege, and the prevailing cultural norms addressing femininity. Furthermore, the nature of girls' interpersonal relationships – their participation in and maintenance of these relationships – and their unique socialization experiences have seldom been considered in theoretical postulations about the prevention and prediction of aggressive behavior and victimization. It is the presence of this strong interpersonal orientation, coupled with the impact of patriarchal norms that promote strict adherence to femininity ideologies, that suggest the features and functions of aggression, and consequently victimization, for girls may differ from boys.

Although differences in the features and functions of aggression and victimization for girls have been recognized, few investigators have situated girls' aggressiveness within a larger societal context or in a female perspective. Furthermore, when gender socialization practices are taken into consideration, the focus is on toddlers or on how parents communicate gender norms to their children (Zahn-Waxler & Polanichka, 2004). Additionally, feminist scholars such as Brown (2003) have relied extensively on qualitative methods to examine the link between gender socialization, aggression, and peer victimization.

Previous research has shown the presence of empirical relationships between the internalization of negative conventions of femininity and lower mental and sexual health outcomes

in girls (Impett et al., 2006; Tolman et al., 2006). In addition, extensive qualitative studies have indicated gender socialization impacts aggressive behavior among girls. However, research to date has yet to use quantitative methodology to examine how negative conventions of femininity are internalized and contribute to aggressive behavior and victimization among girls. One way to consider the impact of gender socialization on aggression and victimization is to assess the internalization of norms of femininity – specifically inauthenticity in relationships and body objectification – found among adolescent girls. Understanding the relationships between these ideologies and aggression and victimization may provide important information about new correlates and contextual elements to consider in prevention and intervention.

Research Questions and Hypotheses

The primary research question in this study is: Are femininity ideologies – inauthenticity in relationships and body objectification – related to overt and relational aggression and victimization among girls? Specific questions include:

1. Is the degree to which young women internalize norms of femininity related to overt and relational aggression and victimization?
2. Do young women use certain forms of aggressive behavior to *adhere* or *reject* norms of femininity?
3. Are girls who are victimized more likely than other girls to internalize such norms?

Different forms and functions of aggression and victimization may serve as mechanisms for girls to negotiate gender identity. If girls evidence increased rates of inauthenticity and body objectification, they may be more likely to engage in relational aggression in reaction to provocation and/or to serve their social goals. Girls may engage in overt aggression in an attempt to break away from traditional notions of femininity, and therefore may report less internalization of these

femininity ideologies. Brown (2003) suggests that physical fighting among girls may be a strategy for breaking away from White, middle-class feminine norms and behaviors. In her extensive qualitative work, Brown encountered many girls who stated that their physical fights served as an expression of freedom because they symbolized a rejection of the constraints of femininity. Further, girls who report being victimized may report higher levels of inauthenticity because they may be less likely to assert their authentic thoughts and feelings to protect themselves from harm. Therefore, specific hypotheses tested in this study are:

1. Higher rates of internalized femininity ideologies (inauthenticity and body objectification) will be positively related to relational aggression (pure, reactive, and instrumental) after controlling for the effects of socio-economic status and ethnicity.
2. Higher rates of internalized femininity ideologies (inauthenticity and body objectification) will be negatively related to physical aggression (pure, reactive, and instrumental) after controlling for the effects of socio-economic status and ethnicity.
3. Higher rates of internalized femininity ideologies (inauthenticity and body objectification) will be positively related to peer victimization after controlling for the effects of socio-economic status and ethnicity.

Summary

This chapter reviewed existing knowledge of the types, functions, causes, correlates, and consequences of overt and relational aggression and peer victimization among girls. The discussion of aggression and peer victimization was situated within a feminist or female perspective, which contends that the unique experiences of girls and women must be considered in postulations about development (Crick & Rose, 2000). Although several authors recognize the importance of unique gender socialization practices for girls, little attention has been given to the

relationship among girls' unique social context, the options available to girls to access power and privilege, and the prevailing cultural norms around femininity (Brown, 2003). Specifically, little is known about the ways in which girls may internalize certain norms of femininity and how the degree of internalization may inform current understanding of aggressive behavior and peer victimization among girls. The following chapter describes the methodology used in the current study.

CHAPTER 3

METHODOLOGY

Sample

The target population for this investigation was eighth grade girls attending middle school in Denver. A non-probability sampling procedure was used to identify five diverse urban middle schools in Denver Public Schools (DPS): Grant Ranch, Kepner, Kunsmiller, Martin Luther King, and Noel. Many previous studies addressing relational aggression and the internalization of feminine norms have focused on White-Non-Latina, middle-class girls. Importantly, the five middle schools in the current study have high percentages of minority and low income students. Study sites were selected in an effort to create a more ethnically and economically diverse sample.

Extensive recruitment efforts were necessary in order to obtain an adequate sample size. The target sample size for this study was 200 adolescent girls based on accepted sample size estimation for structural equation modeling (SEM). An accepted approach to estimate adequate sample size for SEM is based on the number of estimated parameters (Bentler & Chou, 1987). In a recent article, Jackson (2003) demonstrated that generating sample size estimates based on the number of parameters to be estimated is appropriate in SEM. Bentler and Chou (1987) suggested that a ratio as low as five subjects to one estimated parameter could be adequate. However, the authors recommended a ratio of ten to one as preferable. Based on the ten to one ratio recommended by Bentler and Chou (1987), a sample of 200 subjects was determined to be sufficient for the present study. This is further supported by achieved model fit statistics in a recent

simulation study by Jackson (2003) in which adequate model fit statistics were found for sample sizes above 200 subjects. In this study, the mean Root Mean Squared Error of Approximation (RMSEA) for a sample of 200 was .009 (*SD* = .011) and the mean Goodness-of-Fit Index (GFI) was .919 (*SD* = .009). With reliable measures and appropriate model specification, a minimum sample size of 200 participants is adequate to achieve model fit and trustworthy significance tests for the estimated parameters (Bentler & Chou, 1987; Jackson, 2003).

Eighth grade girls were the target population in this study because significant transitions in identity development occur after the onset of puberty and in early adolescence (Zaff & Hair, 2003; Steinberg, 2005). Puberty creates dramatic shifts in self-concepts as physical appearance begins to change and the focus in relationships turns more significantly towards peers (Steinberg, 2005). While critical exploration of the self begins in early adolescence, identities do not typically solidify until later in adolescence (Zaff & Hair, 2003). Therefore, assessing the internalization of femininity ideology seems most appropriate at the beginning of identity development, yet prior to a true commitment being made to a particular identity.

Traditional theories of development (Erikson, 1968) suggest that key developmental tasks in adolescence center on achieving separation and a sense of autonomy. From a feminist perspective, identity development for girls is situated within an oppressive, patriarchal society (Tolman et al., 2006). As such, girls are forced to negotiate their sense of self within a societal structure that encourages an inauthentic self in relationships and an objectified relationship with their bodies. In early adolescence, internalizing negative conventions of femininity may be particularly problematic for the development of girls (Tolman et al., 2006).

Finally, early adolescence was selected as the target age group based on evidence suggesting that this developmental stage is critical in the onset and maintenance of risk behavior

and in the development of patterns of risk and protection (Blum, 1998). During this developmental period, youth often establish patterns in behavior that may impact subsequent life choices and place them at risk for following a troubled trajectory. For example, intimacy, intensity, and complexity within peer relationships are likely to increase during early adolescence, particularly for girls (Crick & Rose, 2000). If aggressive behavior is in turn used to manage peer relationships, it may follow that ineffective social skills may influence the development and maintenance of relationships throughout the life course. Therefore, to assess these constructs in eighth grade seems developmentally appropriate. Importantly, it also creates a vehicle for developing effective prevention and intervention strategies that may offer girls the skills necessary to develop positive and prosocial relationships with others.

Data Collection Procedures

A study approval from the University of Denver's Institutional Review Board was obtained on December 11, 2007. At that time, a proposal detailing the study was submitted to DPS for district approval. DPS approved the study in February 2008, at which point schools were recruited to participate in the study. During the spring of 2008, the researcher sent letters to ten DPS middle schools. Subsequently, the researcher contacted each middle school to arrange meetings with the principals. Five out of ten schools agreed to discuss the study's purpose and potential logistics in the school. When meeting individually with each local school principal, the researcher negotiated the terms of the partnership, which included consent and data collection procedures. Three schools agreed to participate in data collection in both the spring and fall semesters of 2008; two schools agreed to data collection in the fall of 2008.

Active parental consent forms were distributed to parents by eighth grade teachers in each middle school. Initially, one dollar coupons to the school café were offered as incentives to

students, which resulted in low rates of return. Consequently, in an effort to increase the consent rate, students who returned their parental consent form, regardless of consent status, were entered into a drawing for a free iPod shuffle. Teacher incentives ($15 gift cards to Office Max or Border's) were offered for assistance in distributing and collecting consent forms. Additional incentives for the participating schools included a feedback session with the investigator, administrators and teachers after data collection was complete. In these sessions, each school's findings were connected to potential intervention strategies based on well-known school based prevention programs (Hahn et al., 2007; Wilson & Lipsey, 2007) that schools could choose to implement. At one participating school, the principal and school counselor requested that the researcher work directly with students by offering preventative strategies and generating a discussion about the consequences of aggression and peer victimization. In this school, the researcher conducted 30 minute sessions within three classrooms of boys and girls.

All survey materials, including the parent consent form, youth assent form, and survey, were translated into Spanish by a professional translator and native Spanish speaker. Additionally, all survey questions were constructed onto a scannable form so that girls could mark their responses directly on a form that could be subsequently scanned into an excel data file then exported into SPSS. This procedure was negotiated with the University of Denver's Office of Institutional Research and done in an effort to increase the efficiency of the data collection and entry process.

A total of 212 eighth grade girls agreed to participate in the study. In each school, girls were administered a one-time survey during a class time designated by principals, which varied depending on the school's unique schedule and characteristics. Consented girls were identified within the classroom and given a survey and a youth assent form, which each girl signed indicating

that they voluntarily agreed to participate in the survey. After obtaining youth assent, girls completed a one-time, anonymous survey that contained questions regarding race/ethnicity, socioeconomic status, femininity ideology, aggression, victimization, and self-concept.

Measures

Basic demographic information was collected from participants. Girls chose from seven race/ethnicity categories: American Indian/Alaskan Native, Asian/Pacific Islander, Black/African American, Latina, Multi-Racial, White-Non-Latina, and Other. Socioeconomic status (SES) was measured by a series of questions about participation in free and reduced lunch programs as well as levels of maternal education. To maintain a participant level variable, girls were asked to report their participation in free and reduced lunch programs. Additionally, level of maternal education has been demonstrated to be a sufficient measure of SES (Entwisle & Astone, 1994).

A description of each primary measure follows with the complete survey contained in Appendix A. The reliability of the scale scores were estimated using Cronbach's alpha coefficients (Cronbach, 1951). Cronbach's alpha provides a measure of internal consistency and item homogeneity. It is important to note that alpha is impacted by the number of items in a scale (Cortina, 1993). Generally speaking, it is known that alpha increases as the number of items increase. For this reason, Cronbach's alpha coefficients are commonly adjusted (e.g., 10 item scale) using the Spearman-Brown Prophecy formula (Nunnally, 1994). Therefore, the original and adjusted Cronbach's Alphas are provided in Table 1.

Table 1
Initial Scale Reliabilities

Measure	Alpha	n	Rescaled Alpha*
Femininity Ideology	.69	8	.74
Inauthentic Self in Relationships	.52	5	.68
Objectified Relationship with One's Body	.65	3	.86
Little's Aggression Inventory	.94	35	.82
Pure Overt Aggression	.82	6	.82
Instrumental Overt Aggression	.83	6	.89
Reactive Overt Aggression	.86	6	.91
Pure Relational Aggression	.68	5	.81
Instrumental Relational Aggression	.87	6	.92
Reactive Relational Aggression	.73	6	.82
Peer Victimization	.86	5	.91

*Alpha was adjusted to a 10 item scale using the Spearman-Brown Prophecy formula

The Adolescent Femininity Ideology Scale (AFIS) was used to assess inauthenticity in relationships with others and the objectification of one's body (Tolman et al, 2006; Tolman & Porche, 2000). A confirmatory factor analysis was previously performed (Tolman et al, 2006), which revealed good model fit after three questions were eliminated ($\chi^2 = 1.32$, $p < .05$; CFI = .91; RMSEA = .04, SRMR = .07). Final scales included nine questions that were used to assess inauthentic self in relationships with others and eight questions that were used to measure objectified relationship with one's body. Items were measured on a six-point scale ranging from strongly agree to strongly disagree. Three items on the inauthentic self in relationships scale and two items from the objectified relationship with one's body were reverse coded.

After conducting confirmatory factor analysis (CFA), items with low factor loadings (below .32) were removed (Comrey, 1973; Floyd & Widaman, 1995). Standardized factor loadings for each subscale are presented in Table 2. Based on these analyses, the final scales included five items measuring inauthentic self in relationships and three items measuring objectification of one's

body. The final subscale for objectified relationship with one's body is just-identified as it includes only three items. A just-identified model has an equal number of parameters and observations and therefore perfectly fits the data (Kline, 2005) as evidenced by the following fit statistics ($\chi^2 = 0.0$, $p = .000$; CFI = 1.00; RMSEA = .0). However, inauthentic self in relationships subscale, even after removing low loading items, did not achieve adequate fit ($\chi^2 = 11.6$, $p = .041$; CFI = .858; RMSEA = .079) based on χ^2 and CFI. The RMSEA value is on the upper end of an acceptable range. Acceptable reliability estimates for the inauthenticity in relationships scale (Cronbach's Alpha = .68) and body objectification scale (Cronbach's Alpha = .86) were achieved after the Spearman-Brown Prophecy formula adjustment was applied.

Table 2
Standardized Factor Loadings for Femininity Ideology Subscales

Measure	Standardized Factor Loading
Inauthentic Self in Relationships	
Item 1	0.237
Item 2_R	- 0.115
Item 3_R	- 0.036
Item 4	0.347
Item 5	0.480
Item 6	0.359
Item 7	0.479
Item 8_R	0.284
Item 9	0.442
Objectified Relationship with One's Body	
Item 1	0.146
Item 2	0.301
Item 3_R	0.194
Item 4_R	0.193
Item 5	0.406
Item 6	0.752
Item 7	0.185
Item 8	0.817

Little's Aggression Inventory (LAI) measures relational and physical aggression as well as the functions of aggression (reactive vs. instrumental) (Little et al., 2003). The total scale contained 36 questions that were measured on a four-point scale ranging from "completely true about me" to "not true at all about me." Adequate reliability was found for the overt aggression scales in prior investigations (Little et al., 2003; Little, Brauner, Jones, Nock, & Hawley, 2003). However, the relational aggression scales' reliabilities reported in these investigations were slightly lower. Reasonably good model fit was found (RMSEA = .061; .041 respectively) in prior investigations (Little et al., 2003; Little, Brauner, Jones, Nock, & Hawley, 2003). In the present study, six-item subscales were used to assess pure relational aggression, reactive relational aggression, instrumental relational aggression, pure overt aggression, reactive overt aggression, and instrumental overt aggression. Adequate model fit was achieved for each aggression subscale. Confirmatory factor analyses results are reported in Table 3.

Table 3
Confirmatory Factor Analysis Results for Little's Aggression Inventory Subscales

Subscale	χ^2	CFI	RMSEA (CI)
Pure Overt Aggression	9.44	.998	.015 (.000, .080)
Instrumental Overt Aggression	10.74	.984	.030 (.000, .086)
Reactive Overt Aggression	25.88*	.951	.094 (.053, .137)
Pure Relational Aggression	16.03	.929	.061 (.000, .108)
Instrumental Relational Aggression	4.98	1.000	.000 (.000, .045)
Reactive Relational Aggression	8.25	1.000	.000 (.000, .073)

* $p < .05$

All standardized factor loadings met criteria for inclusion based on the recommendations of Comrey (1973) and Floyd and Widaman (1995), as each loading exceeded the threshold of .32 with one exception. The first question on the pure relational aggression subscale had a factor loading of .306; therefore, this item was removed in the final CFA and structural models. Again,

each aggression subscale demonstrated adequate reliability after applying the Spearman-Brown Prophecy formula adjustment.

A commonly used measure for bullying and victimization is the Revised Olweus Bully Victim Questionnaire (Olweus, 1996). As other measures were used to assess aggression, six questions related to relational and overt victimization were used from the Revised Olweus Bully Victim Questionnaire. These items were measured on a five-point scale assessing how frequently girls were victimized ranging from several times a week to "It hasn't happened to me in the past month." The overall scale reliability as estimated by Cronbach's Alpha was .91. All items were reverse coded so that higher scores corresponded to higher rates of peer victimization. A confirmatory factor analysis revealed adequate model fit for the entire six-item scale ($\chi^2 = 21.7$, $p = .010$; CFI = .949; RMSEA = .083). Again, all standardized factor loadings met criteria for inclusion based on the recommendations of Comrey (1973) and Floyd and Widaman (1995), as each loading exceeded the threshold of .32.

Data Analysis Procedures

Initial analyses included descriptive statistics for data cleaning and verification purposes. Descriptive statistics were used to screen for missing data, identify univariate and multivariate outliers, establish multivariate normality, and verify other important assumptions were met (Tabachnick & Fidell, 2007). Other preliminary analyses included examining the prevalence rates of overt and relational aggression, including the functions of each form, the frequency of peer victimization, and the rates of internalized femininity ideologies.

Structural equation modeling (SEM) was used to explore the fit of several hypothesized theoretical models to the observed data. SEM is widely used in social sciences, and has been applied in previous research on femininity ideology (Tolman et al., 2006) and aggression (Little et

al., 2003). SEM can be used with experimental or non-experimental data (Kline, 2005). The benefit of using SEM over other statistical techniques is its ability to model latent variables and explore complex relationships among a set of variables (Kline, 2005; Muthén, 2002). Muthén (2002) characterized SEM as moving beyond factor analysis by "relating the constructs to each other and to covariates in a system of linear regressions thereby purging 'structural regressions' of biasing effects of measurement error" (p. 82).

SEM is also referred to in the literature as covariance structure analysis or covariance structure modeling as it attempts to understand patterns of correlations among variables and to explain as much variance as possible given the model specified by the researcher (Kline, 2005). SEM is an a priori method where specified hypothesized models can be tested in either a confirmatory or exploratory manner (Kline, 2005). Jöreskog (1993) distinguished between strictly confirmatory and model-generating applications of SEM. He noted that SEM can be used in a strictly confirmatory manner in which a hypothesized model is either accepted or rejected based on how well it corresponds to the observed data. He also suggested that SEM can be used to generate models (Jöreskog, 1993), which has become the most common application of the technique (Kline, 2005). In this approach, an a priori hypothesized model is tested and is modified by the researcher if adequate model fit is not initially achieved. The purpose of model generation is to determine a model that makes theoretical sense and its "statistical correspondence" to the observed data is reasonable (Kline, 2005, p. 11).

Confirmatory Factor Analysis

Before exploring any structural models, confirmatory factor analysis (CFA) was performed to confirm the factor structure of each measurement tool. As the aggression and femininity ideology measures were validated on primarily White-Non-Latina, middle class samples, confirming the

factor structure of each measure was critical before performing any structural analysis. Model estimation for each CFA was conducted using robust maximum likelihood estimation (MLR) (Satorra & Bentler, 2001). These standard CFA models included the following common characteristics. Each indicator is represented as having two causes: an underlying latent factor that the indicator is presumed to measure and an error term which captures all other unique sources of causation. Each indicator's error term are assumed to be independent from each other and the latent factor (Kline, 2005). The interpretation of the latent variable in CFA is determined specifically by the magnitude of the standardized factor loadings of each indicator on the latent variable (Palmer, Graham, Taylor, & Tatterson, 2002). The standardized factor loadings are then interpreted as the correlation between each indicator and the latent variable. Indicators with the highest standardized factor loadings or correlation with the factor define the meaning of the latent variable (Palmer et al., 2002). Based on the results of each CFA model, items were removed if the standardized factor loadings were below .32 as recommended by Comrey (1973) and Floyd and Widaman (1995). After removing items with low factor loadings, a valid measurement model for each primary measurement tool was identified. Determining a valid measurement model was required in order to evaluate the structural models (Kline, 2005).

Structural Equation Modeling

McDonald and Ho (2002) characterize a structural equation model as including two primary components: a measurement model that represents "a set of *p* observable variables as multiple indicators of a smaller set of *m* latent variables; and a path model that "describes relations of dependency – usually accepted to be in some sense causal – between the latent factors" (p. 65). Both McDonald and Ho (2002) and Raykov, Tomer, and Nesselraode (1991) offer similar strategies

for reporting the results of structural equation models based on model specification, identification, estimation, interpretation and modification.

According to Raykov et al. (1991), several essential guidelines structure the process of estimating and reporting structural equation models. First, a structural equation model must be correctly specified (McDonald & Ho, 2002), which includes a graphical presentation of the model and the hypothesized relationships between latent factors (Raykov et al., 1991). The specification of the models is based on the underlying theory of the investigation and captures the hypothesized relationships among a set of latent factors. Typically, the graphical representation includes circles to specify unobserved, latent factors and squares describing observed variables, with one-headed arrows to depict presumed casual paths and two-headed arrows representing non-directional covariation (Raykov et al., 1991).

Second, the measurement and structural models must be correctly identified (McDonald & Ho, 2002). A model is considered to be identified "if it is *theoretically* possible to derive a unique estimate of each parameter" (Kline, 2005, p. 105). Two important conditions must be satisfied for model identification: "(1) there must be at least as many observations as free model parameters ($df_M \geq 0$), and (2) every unobservable (latent) variable must be assigned a scale (metric)" (Kline, 2005, p. 105). For CFA models, factor loadings must form independent clusters, which require that each latent factor must have at least three indicators for uncorrelated latent factors (McDonald & Ho, 2002). The identification of path models includes the distinction between exogenous and endogenous variables. An exogenous variable has no direct paths ending on it and its entire variance is unexplained by variables in the model. An endogenous variable has at least one direct path ending on it, which originates from one or more of the exogenous or another endogenous variable (McDonald & Ho, 2002).

As part of the identification process, Raykov et al. (1991) suggest that the kind of matrix to be analyzed, the treatment of missing values and outliers, the testing of key assumptions, and the method of parameter estimation must be specified. In the present analysis, the covariance matrix was analyzed for the models estimated using MPlus version 5.1 Base Program software (Muthén & Muthén, 2008). As recommended by Raykov et al. (1991) and McDonald and Ho (2002), the analyzed covariance matrix and the means and standard deviations of the observed variables are reported in Tables 8-13 in Chapter 4. As described in Chapter 4, little missing data (less than 1% on all femininity ideology and aggression measures and less than 5% on the victimization measure) and only one outlier were identified. In terms of key assumptions for SEM, multivariate normality is required. This assumption can be evaluated univariately by examining the skewness, kurtosis, and histograms of each distribution (McDonald & Ho, 2002). As revealed through testing this assumption, significant univariate non-normality was determined statistically based on skewness and kurtosis and graphically through producing histograms. Several simulation studies have suggested that maximum likelihood estimation can give biased standard errors and incorrect test statistics with excessive skewness and kurtosis (Chou, Bentler, & Satorra, 1991; Hu & Bentler, 1995; West, Finch, & Curran, 1995 all as cited in McDonald & Ho, 2002). As such, robust maximum likelihood estimation (MLR) was used for all measurement and structural models as recommended by Satorra and Bentler (2001) and Nevitt and Hancok (2000). MLR is an appropriate estimation method when distributions are non-normal (Yuan, Chan, & Bentler, 2000). MLR uses the Satorra-Bentler Chi-square and provides an adjusted chi-square as well as robust standard errors. The parameter estimates when using MLR, however, should be the same as with traditional maximum likelihood estimation (Satorra & Bentler, 2001; Nevitt & Hancok, 2000).

Third, model evaluation includes examining the fit of each hypothesized measurement and structural model. McDonald and Ho (2002) recommend examining and reporting several global fit indices, such as chi square (χ^2), comparative fit index (CFI) and root mean squared error of approximation (RMSEA). Raykov et al. (1991) concur that a combination of fit indices must be reported to describe the adequacy of the hypothesized models. Chi square (χ^2), comparative fit index (CFI) and root mean squared error of approximation (RMSEA) are the most commonly reported fit indices (McDonald & Ho, 2002). As such, these fit indices were used to assess the adequacy of each structural and measurement model (Kline, 2005). Chi square (χ^2), also known as likelihood ratio chi square or the generalized likelihood ratio, assesses the null hypothesis that the model is correct or has perfect fit in the population (Kline, 2005). Thus, chi square actually characterizes "badness-of-fit" as higher values indicate worse model fit (Kline, 2005, p. 135).

CFI, which is stable across different sample sizes (Bentler, 1990), assesses the "difference in noncentrality" when comparing the hypothesized model against the null model (Palmer et al., 2002, p. 541). A CFI value above .900 is typically considered adequate fit (McDonald & Ho, 2002). RMSEA, which is also free from sampling bias, assesses the degree to which the hypothesized model does not fit the population covariance matrix (McDonald & Ho, 2002). This particular fit index is not impacted by the number of parameters added to or removed from the model (Palmer et al., 2002). Typically a RMSEA of 0.05 or less indicates a close fit of the model, whereas a value between 0.05 and 0.08 is considered acceptable fit (McDonald & Ho, 2002).

Fourth, once model fit has been established, the examination of the obtained solution, including parameter estimates and standard errors, follows (Raykov et al., 1991). The parameter estimates of a structural equation model are the "independently estimated loadings and error variances and covariances in the measurement model, and the independently estimated directed

arc [path] coefficients and disturbance variances and covariances in the path model" (McDonald & Ho, 2002, p. 75). The sign, size, and significance of each parameter estimate must be examined and discussed, when possible, according to the following questions: Are the values reasonable when substantively interpreted; and is the interpretation in accordance with similar studies in the field (Raykov et al., 1991). McDonald and Ho (2002) suggest that the relationships among latent factors are most easily interpreted and presented in the form of a path diagram. The final solutions are therefore presented in Chapter 4 as path diagrams for each outcome (Figures 2-15).

Lastly, structural models may be modified according to a priori alternative model specification based on the underlying theory or in a post hoc manner based on model modification indices provided by MPlus (Raykov et al., 1991; McDonald & Ho, 2002). McDonald and Ho (2002) caution that modifications must have an underlying theoretical justification that is reported, whether generating alternative models prior to or after planned analysis. As such, they recommend that plausible competing models should be generated a priori by the investigator, along with the "target" model.

Summary

This chapter described the research design and methods used to examine relationships between the internalization of femininity ideologies and experiences with aggression and peer victimization among a sample of middle school girls in Denver. Included in the present chapter was a detailed discussion of the sampling strategy, data collection procedures, and measurement issues. A description of the data analysis strategy, including explanations of initial descriptive analysis and structural equation modeling, provided a framework for the results presented in the following chapter.

CHAPTER 4

RESULTS

Overview of Analytic Strategy

Descriptive statistics were used to screen for missing data, identify outliers, establish normality, verify other important assumptions were met, and describe rates of aggressive behavior and peer victimization in this sample. Structural equation modeling (SEM) was used to confirm the factor structure of each primary measurement tool and to explore the fit of several hypothesized theoretical models to the observed data. As recommended by McDonald and Ho (2002) and Raykov et al. (1991), results of the hypothesized structural equation models are reported based on model specification, identification, estimation, interpretation and modification. Sample characteristics and results from the descriptive analyses and structural equation models follow.

Sample Characteristics

The final sample size for this study was 212 eighth grade girls from five middle schools in Denver. A total of thirty-five students from Grant Ranch (64% consent rate), 68 students from Kepner (28% consent rate), 55 students from Kunsmiller (45% consent rate); 18 students from Martin Luther King (13% consent rate); and 36 students from Noel (38% consent rate) participated in the study. The overall consent rate for this study was 32%. The mean age for the entire sample was 13.5 years old (*SD* = .78). As surveys were administered in two semesters, an independent

samples t-test was conducted to assess if there was a significant age difference between spring and fall participants. Results indicated a significant group difference in age between spring and fall participants. The mean age of spring participants (Mean Age = 14.22) was significantly higher than that of fall participants (Mean Age = 13.09), $t(210) = 14.84$, $p < .001$.

Demographic characteristics by school are presented in Table 4. For the entire sample, seventy-one percent (n=150) of the sample was Latina; 9% (n=18) was Black; 9% (n=18) was Multiracial; 6% (n=13) was Anglo; 5% (n=10) was Asian; and 2% (n=3) was Other. Over 75% (n=159) of the sample participated in free or reduced lunch programs. Approximately 43% (n=92) of the sample indicated their mom or female guardian did not complete high school; 26% (n=55) reported their mom or female guardian completed high school; 11% (n=24) indicated their mom or female guardian completed some college; and 15% (n=30) reported their mom or female guardian completed a four-year college degree or beyond. Eleven students did not report their mom's education level.

Table 4

Demographic Characteristics by School

	Grant Ranch	Kepner	Kunsmiller	Martin Luther King	Noel	TOTAL
Participants (n)	35	68	55	18	36	212
Age						
M	14.05	13.91	13.15	13.11	13.17	13.54
SD	.68	.64	.89	.32	.38	.78
Ethnicity (%)						
Latina	31.4	86.8	83.6	44.4	72.2	70.8
African American	5.7	2.9	3.6	38.9	13.9	8.5
American Indian	0.0	2.9	0.0	0.0	0.0	0.9
Anglo	28.6	0.0	3.6	0.0	2.8	6.1
Asian	14.3	2.9	5.5	0.0	0.0	4.7
Multi-Racial	17.1	4.4	3.6	16.7	11.1	8.5
Other	2.9	0.0	0.0	0.0	0.0	0.5
Free/Reduced Lunch Participation						
Yes	17.1	94.1	78.2	66.7	94.4	75.0
Mother's Education Level						
Did not finish high school	14.3	45.6	61.8	38.9	41.7	43.3
Finished high school	31.4	26.5	16.4	33.3	30.6	25.9
Some college	11.4	10.3	10.9	0.0	19.4	11.3
Four-year degree	17.1	8.8	1.8	0.0	8.3	7.5
Beyond college	20.0	4.4	5.5	5.6	0.0	6.6

Preliminary Analysis

Descriptive statistics were used to screen for missing data, identify outliers, establish normality, and verify that other important assumptions were met (Tabachnick & Fidell, 2007). Descriptive statistics indicated less than one percent missing data on each aggression measure and femininity ideology measures. On the victimization items, less than five percent missing data

was determined through descriptive analysis. As these statistics indicated very little missing data, no imputation methods were necessary because a few missing scores in a larger sample are of little concern in structural equation modeling (Kline, 2005; Tabachnick & Fidell, 2007). Further, as less than five percent of missing data was found for all primary study variables, subsequent testing to identify the pattern of missingness, as recommended by Schafer and Graham (2002), was not performed.

Outliers can lead to both Type I and Type II errors as well as limit the generalizability of the results beyond the study's sample (Hadi & Simonoff, 1993; Tabachnick & Fidell, 2007). As the data were not grouped, procedures were used to identify outliers. These procedures included examining standardized scores on one or more variables and identifying cases with standardized scores in excess of 3.29 (Tabachnick & Fidell, 2007). As the extremeness of standardized scores can depend on sample size, further procedures were used to verify that certain cases were true outliers. Hadi and Simonoff (1993) note that procedures such as leverage and influence may not correctly identify multivariate outliers because some outliers may mask the presence of other outliers. These procedures may not be sensitive enough to detect and, therefore, are not perfectly reliable (Hadi & Simonoff, 1993). Tabachnick and Fidell (2007) suggest that outliers are most easily detected through Mahalanobis distance, although cautiously. Mahalanobis distance is the "distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all variables" (Tabachnick & Fidell, 2007, p. 74). In SPSS, Mahalanobis distance was requested for each primary study variable by running a series of simple regressions using the residuals subcommand. As results from Mahalanobis distance must be interpreted with caution (Tabachnick & Fidell, 2007), boxplots, also referred to as box and whisker plots, were examined to identify cases with values more extreme than the whiskers (lines drawn

from the quartiles out to any adjacent values) (Howell, 2007). These procedures revealed only one case that could be considered an outlier on the aggression measures. However, the case was not an outlier on the femininity ideology measures or on questions measuring peer victimization. The case was not eliminated as it is assumed this participant is a legitimate part of the population from which the sample was generated (Tabachnick & Fidell, 2007).

To test for normality, mean scale scores were calculated for each primary measurement tool by summing the responses to each question then dividing by the number of non-missing items as recommended by Jenson and Dieterich (2007). Normality is an important assumption of SEM (Kline, 2005) and assumes that each variable and all combinations of the variables are normally distributed (Tabachnick & Fidell, 2007). Normality, when met, also assumes that the residual terms are normally distributed as well as independent from one another (Tabachnick & Fidell, 2007). Two common measures assessing normality include skewness and kurtosis. Skewness describes the symmetry of a distribution; while kurtosis characterizes the peakedness of the distribution (Tabachnick & Fidell, 2007). In SEM, excess kurtosis can affect the efficiency of model estimation when using maximum likelihood (Yuan, Chan, & Bentler, 2000). As maximum likelihood estimation utilizes the sample covariance matrix (S), only when data are normal can S achieve unbiased parameter estimates and correct test statistics (Yuan et al., 2000). If distributions are non-normal, two approaches are commonly used – data transformations to achieve normality or the use of robust statistics (Yuan et al., 2000).

Table 5 details the skewness and kurtosis of each scale score. As univariate normality was not established, multivariate normality was not investigated. Given the prevalence estimation of aggression and peer victimization reported in previous studies (Jenson & Dieterich, 2007; Nansel et al., 2001; Solberg & Olweus, 2003), most youth are uninvolved in these behaviors. Therefore, it

is not surprising that the distributions for most of the aggression measures are non-normal according to skewness and kurtosis statistics. There is a clustering of cases around zero, indicating positively-skewed and leptokurtic distributions.

Table 5

Descriptive Analysis of Scale Scores

	N	Maximum	Mean	SD	Skewness	Kurtosis
ISR_MEAN	212	5.44	3.05	0.73	-0.10	-0.14
ORB_MEAN	212	5.75	2.74	0.85	0.38	0.10
PRA_MEAN	212	3.83	1.38	0.44	2.05	5.91
IRA_MEAN	212	3.67	1.29	0.44	2.65	8.16
RRA_MEAN	212	3.83	1.54	0.50	1.33	2.56
POA_MEAN	212	3.83	1.37	0.51	1.97	4.36
IOA_MEAN	212	3.33	1.29	0.44	2.44	6.23
ROA_MEAN	212	4.00	1.86	0.72	0.92	0.32
VICTIMIZATION_MEAN	205	5.00	1.84	0.98	1.35	1.00

To remedy the non-normality of the aggression measures, initially logarithm transformations were considered. However, although data transformations are sometimes recommended for non-normal distributions, they are not universally recommended as transformed variables are harder to interpret (Tabachnick & Fidell, 2007). Therefore, the second approach to dealing with non-normality was followed by using robust test statistics and estimation methods. As recommended by Satorra and Bentler (2001) and Nevitt and Hancok (2000), robust maximum likelihood estimation (MLR) was used in all structural equation modeling. MLR uses the Satorra-Bentler Chi-square and provides an adjusted chi-square as well as robust standard errors. The parameter estimates when using MLR, however, should be the same as with traditional maximum likelihood estimation (Satorra & Bentler, 2001; Nevitt & Hancok, 2000).

To assess linearity and multicollinearity, scatterplots and a correlation matrix were produced using the mean scale scores. Linearity assumes that there is a straight-line or linear relationship between two variables. Kline (2005) recommends assessing linearity for structural equation models by examining bivariate scatterplots. Scatterplots showed a linear relationship between each scale score, suggesting that this assumption was met. Multicollinearity describes a problem within a correlation matrix where two variables are too highly correlated or when a Pearson's *r* value is above .90 (Tabachnick & Fidell, 2007). Although structural equation modeling can be robust to violations of multicollinearity, redundant, or highly correlated, variables are not needed and still may inflate the size of the error terms (Kline, 2005; Tabachnick & Fidell, 2007). The correlation matrix (Table 6) revealed no significant problems with multicollinearity with the femininity, aggression, and victimization measures. Based on the Phi (Φ) Coefficient which assesses the degree of association between two binary variables, a strong, statistically significant association was found between Latina (Yes/No) and Free/Reduced Lunch Participation (Yes/No), $\Phi = .871$, $p < .001$. This result suggests that Latina and Free/Reduced Lunch Participation should not be modeled simultaneously as covariates in the structural equation models as their inclusion may present a problem with multicollinearity. Therefore, only Latina (Yes/No) was modeled in the SEM analyses.

Table 6
Scale Score Correlation Matrix

	1	2	3	4	5	6	7	8	9
1. ISR_MEAN	1								
2. ORB_MEAN	.412***	1							
3. PRA_MEAN	-.044	.092	1						
4. IRA_MEAN	-.038	.048	.796***	1					
5. RRA_MEAN	-.066	.066	.678***	.765***	1				
6. POA_MEAN	-.078	.115	.672***	.679***	.588***	1			
7. IOA_MEAN	-.100	.048	.657**	.727***	.599***	.821***	1		
8. ROA_MEAN	-.136*	.037	.553***	.532***	.592***	.749***	.750***	1	
9. VICTIMIZATION_MEAN	.167*	.222**	.204**	.270***	.247***	.257***	.183**	.140*	1

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

Self-Perceptions of Aggression and Rates of Victimization

To provide a context for the subsequent structural equation model results, the following section describes the level of self-perceived aggressive behavior and the rates of peer victimization reported by the participants in this study. As reported in Table 5, the mean scale scores for each aggression subscale range from 1.29 on the instrumental overt and relational aggression subscales to 1.86 on the reactive overt aggression subscale. The frequency distributions show severe positive skewness, indicating that most girls perceive themselves as non-aggressive. While most girls report little aggressive behavior, some girls report higher levels of aggression. Interestingly, the highest scale means were found for reactive relational aggression (M = 1.54, SD = .50) and reactive overt aggression (M = 1.86, SD = .72). This suggests that girls who use aggressive behavior are more likely to do so in reaction to provocation versus instrumentally to achieve a particular social goal. This finding is consistent with other studies suggesting that girls may be more likely than boys to engage in reactive versus proactive aggression (Little et al., 2003; Vitaro & Brendgen, 2005).

To estimate the prevalence of peer victimization in the current sample, dichotomous versions of the peer victimization scale items were constructed using cut-off points recommended for prevalence estimation of victimization in middle school populations as described by Solberg and Olweus (2003). If a student reported being bullied “two or three times a month” or more on any of the peer victimization scale items the dichotomous measure was coded one and zero otherwise. The most common form of victimization reported in this sample is overt verbal aggression, with 26% (n=56) reporting frequent victimization by being called mean names, made fun of, or teased in a hurtful way. Following verbal aggression, items assessing relational victimization had the highest percentages with 20% (n=43) reporting social exclusion and 25% (n=52) reporting having false

rumors spread about them. Perhaps not surprisingly, rates of overt victimization, including hitting, kicking, and physical intimidation, were lower than those of verbal and relational victimization. Most commonly, however, based on these items, was that 18% (n=37) of girls in this sample reported being hit, kicked, pushed, or shoved around.

Self-perceived aggression behavior and rates of peer victimization in this sample are consistent with other studies in which approximately 25% of school-aged youth report involvement in bullying and victimization (Jenson & Dieterich, 2007; Nansel et al., 2001; Solberg & Olweus, 2003), with higher numbers of victims and fewer bullies as bullies typically have more than one victim.

Structural Equation Model Results

The following section details the results of the structural equation models for each study outcome: pure relational aggression, instrumental relational aggression, reactive relational aggression, pure overt aggression, instrumental overt aggression, reactive overt aggression, and peer victimization. Each structural model includes the measurement model as well as age and Latina (Yes/No) as covariates. As there was a significant difference in age across semester, age was modeled as a covariate. As discussed above, Latina (Yes/No) was modeled as a covariate for ethnicity. No indicator for socioeconomic status was included given the high degree of association between Latina status and Free/Reduced Lunch Participation. The exclusion of this variable also helped to eliminate the potential impact of multicollinearity on the results. The reported results for each structural model are then used to discuss the degree to which the study's hypotheses can be supported by the data.

Pure, Instrumental, and Reactive Relational Aggression

The final hypothesis tested for relational aggression was: Higher rates of internalized femininity ideologies (inauthenticity and body objectification) will be positively related to relational aggression (pure, reactive, and instrumental) after controlling for the effects of age and ethnicity. The structural equation models for pure relational aggression are specified in Figures 2 and 3. Instrumental relational aggression models are found in Figures 4 and 5. Reactive relational aggression models are shown in Figures 6 and 7. Figures 2, 4, and 6 report unstandardized estimates. Figures 3, 5, and 7 include standardized estimates that are used to discuss the relationships among femininity ideology, relational aggression, age, and Latina status. The models' covariance matrices and corresponding means and standard deviations are reported in Tables 7-9 in Appendix B. As no additional theoretical relationships were hypothesized prior to the analysis, model modifications were not used.

The model for *pure* relational aggression achieved model fit based on CFI and RMSEA (χ^2 = 108.14, p = .03; CFI = .927; RMSEA = .04, CI = .01, .06). The model for *instrumental* relational aggression achieved model fit based on all three fit statistics (χ^2 = 117.07, p = .07; CFI = .966; RMSEA = .03, CI = .00, .05). The model for *reactive* relational aggression achieved model fit based on RMSEA (χ^2 = 140.80, p = .02; CFI = .899; RMSEA = .05, CI = .03, .06). Therefore the standardized estimates can be interpreted for each model to characterize the relationships between femininity ideology and relational aggression, controlling for age and ethnicity. In each model, relational aggression was regressed on inauthentic self in relationships and body objectification, controlling for age and Latina status.

The standardized estimates for the paths between pure relational aggression and inauthentic self in relationships and body objectification are non-significant (p = .103 and p = .142,

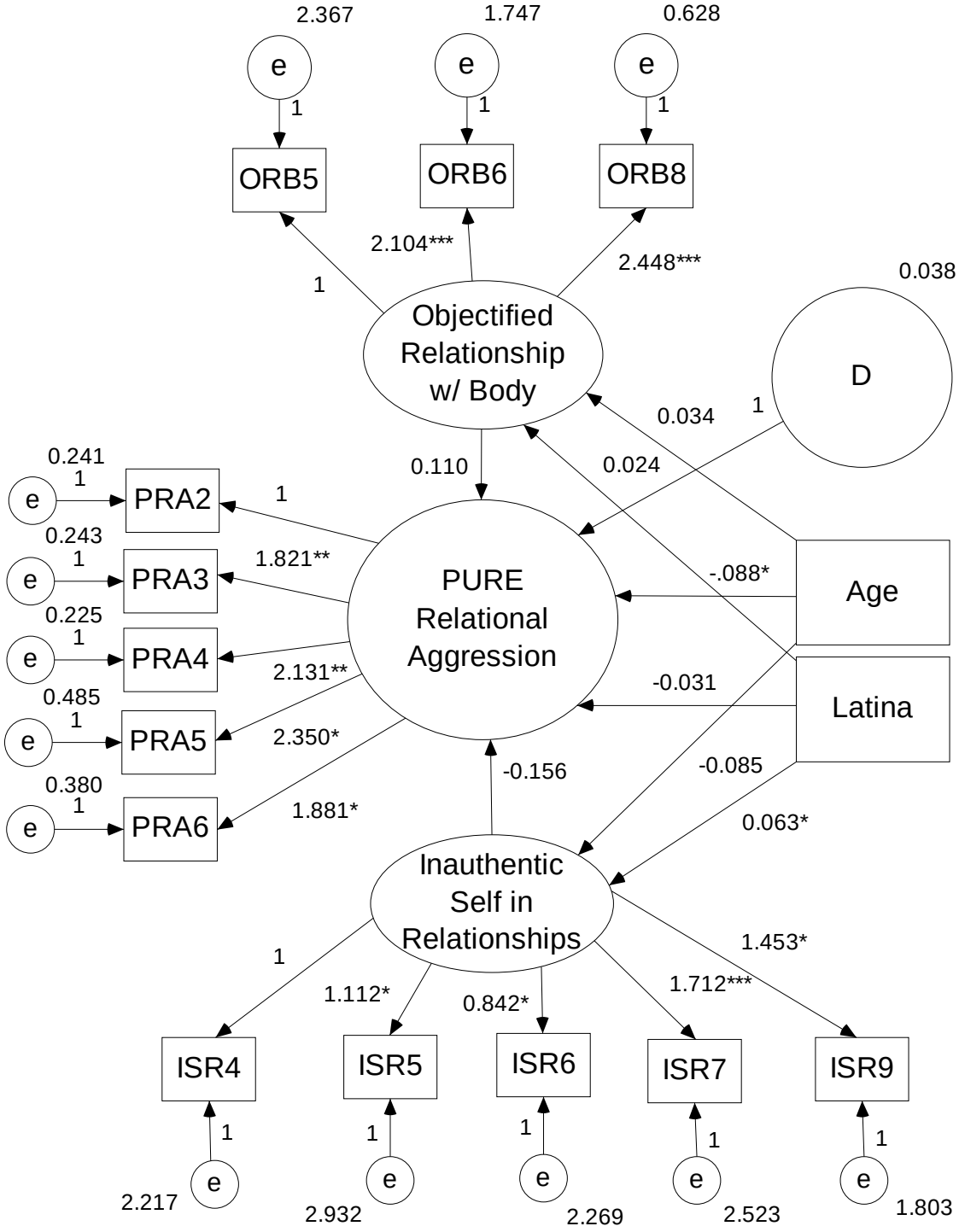
respectively). Similarly, the standardized estimates for the paths between instrumental relational aggression and inauthentic self in relationships and body objectification are non-significant ($p = .367$ and $p = .762$, respectively). The standardized estimates for the paths between reactive relational aggression and inauthentic self in relationships and body objectification are again non-significant ($p = .284$ and $p = .377$, respectively). Therefore, the first hypothesis characterizing the relationships between femininity ideology and pure, instrumental, and reactive relational aggression was not supported.

Although non-significant, the relationships between body objectification and pure, instrumental, and reactive relational aggression were positive suggesting that higher rates of body objectification are related to higher rates of relational aggression. However, the relationships between inauthentic self in relationships and relational aggression, while all non-significant, were negative implying that higher rates of inauthenticity may be related to lower rates of relational aggression.

Several significant relationships were found in each model with the covariates of age and Latina status. Age was significantly associated with pure relational aggression ($p = .001$), instrumental relational aggression ($p < .001$), reactive relational aggression ($p < .001$), and inauthentic self in relationships ($p = .037$). As age increases, relational aggression scores decrease. Furthermore, as age increases, inauthentic self in relationships scores decrease suggesting that older girls report lower rates of inaunthenticity in their relationships. Additionally, Latina status was significantly associated with inauthentic self in relationships in each model ($p = 0.02$). Specifically, being Latina results in an increase in scores on the inauthentic self in relationships scale.

Figure 2

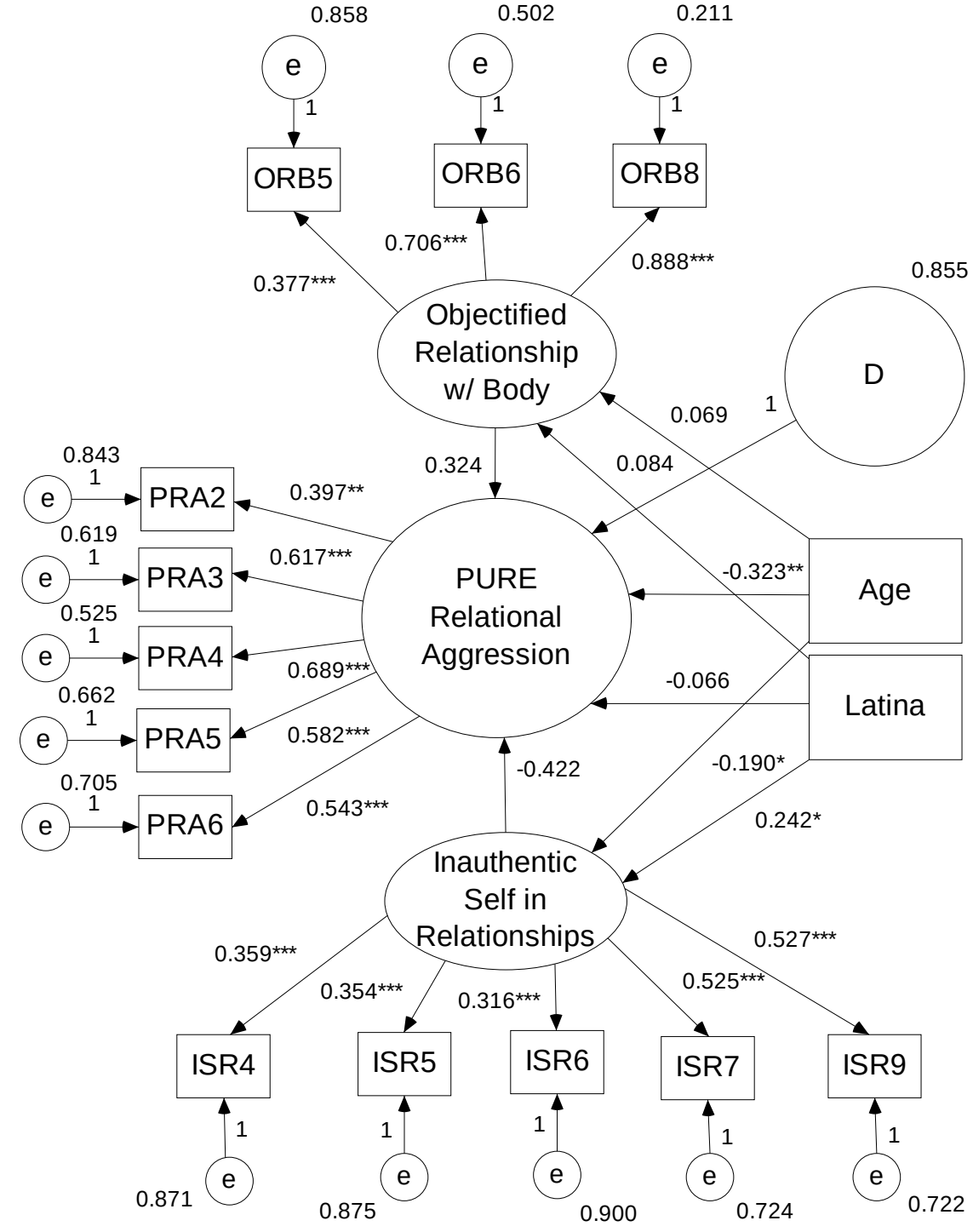
Final Structural Model: Pure Relational Aggression with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 3

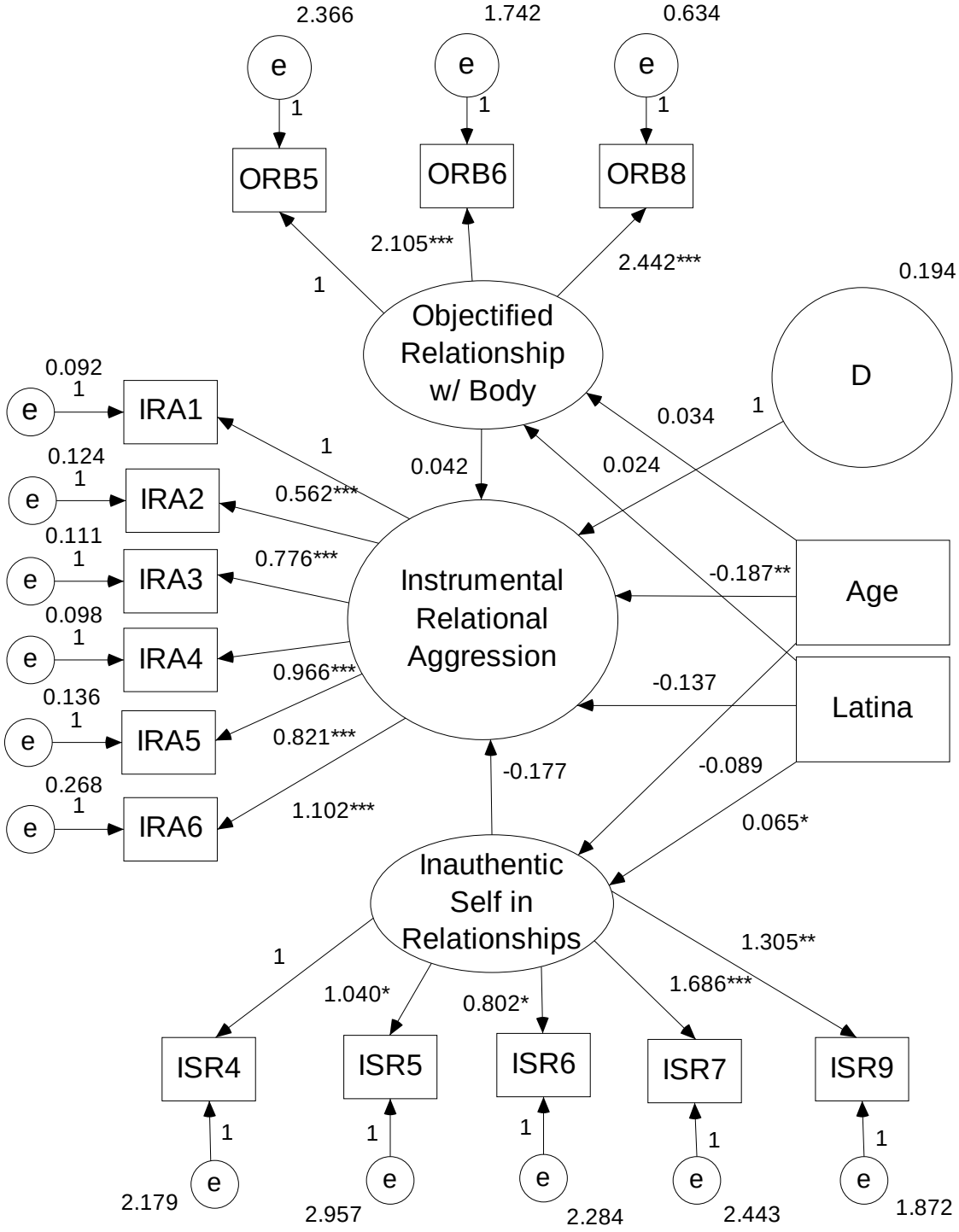
Final Structural Model: Pure Relational Aggression with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 4

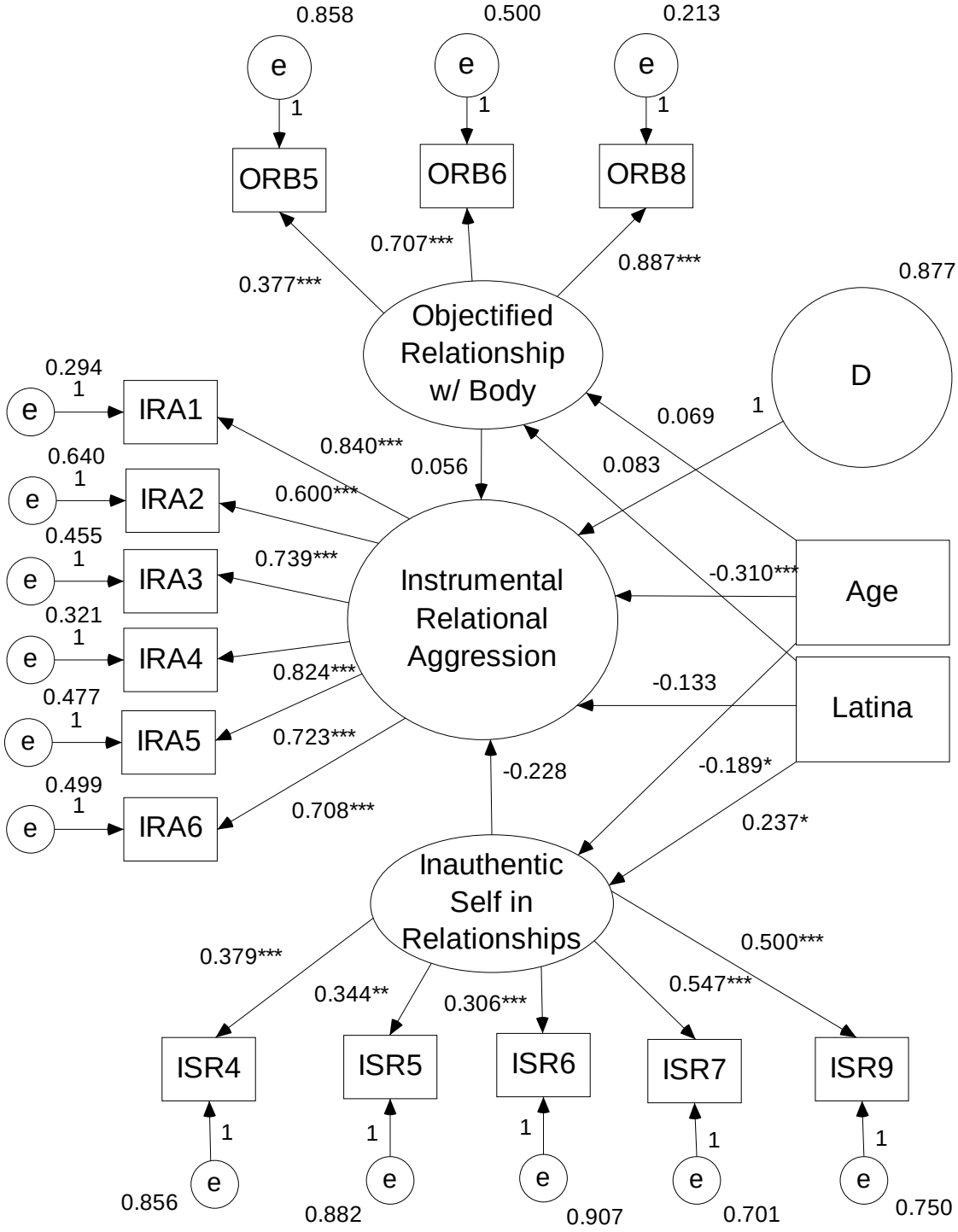
Final Structural Model: Instrumental Relational Aggression with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 5

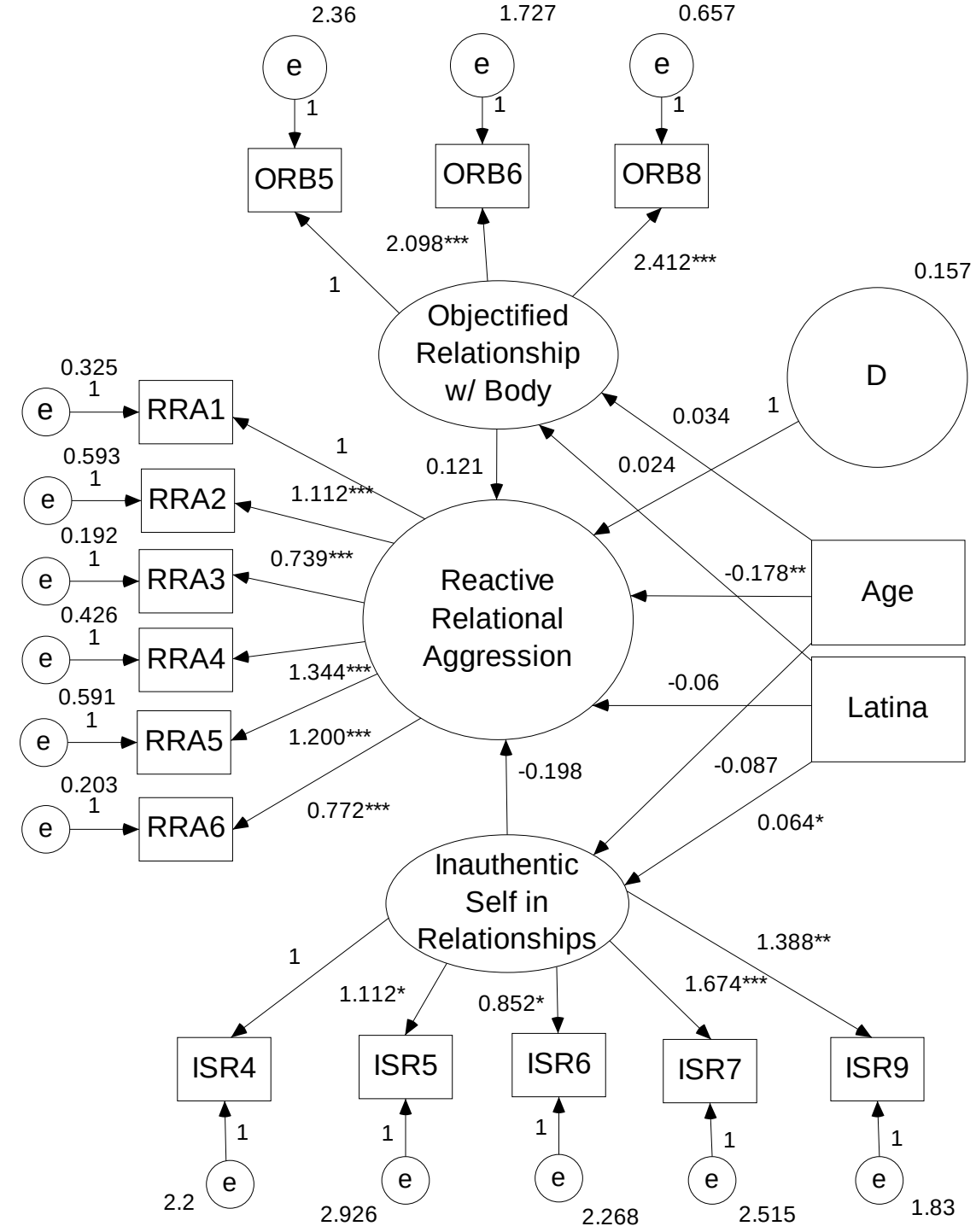
Final Structural Model: Instrumental Relational Aggression with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 6

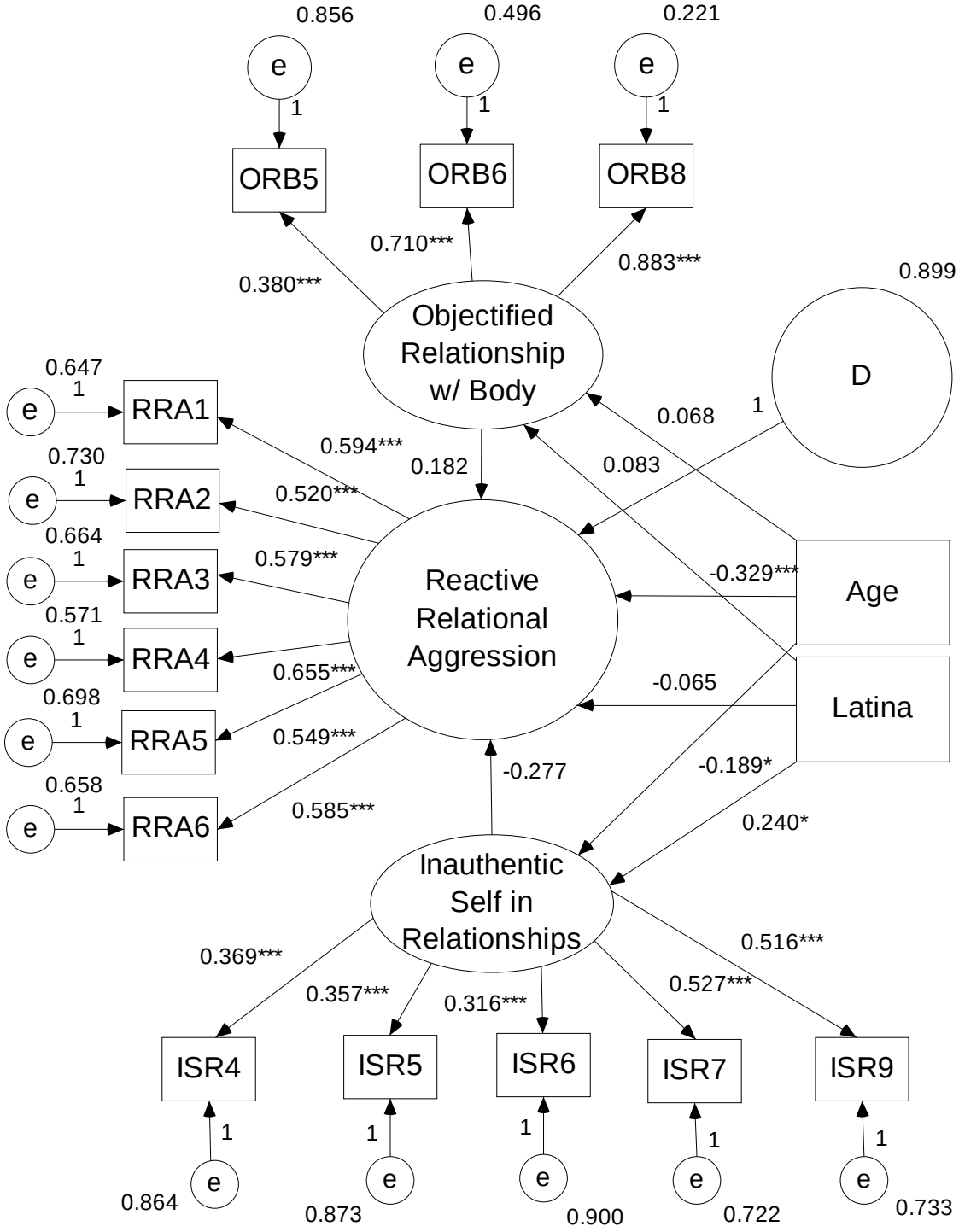
Final Structural Model: Reactive Relational Aggression with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 7

Final Structural Model: Reactive Relational Aggression with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Pure, Instrumental, and Reactive Overt Aggression

The final hypothesis tested for overt aggression was: Higher rates of internalized femininity ideologies (inauthenticity and body objectification) will be negatively related to overt aggression (pure, reactive, and instrumental) after controlling for the effects of age and ethnicity. The structural equation models for pure overt aggression are specified in Figures 8 and 9. Instrumental overt aggression models are shown in Figures 10 and 11. Reactive overt aggression models are found in Figures 12 and 13. Figures 8, 10, and 12 report unstandardized estimates. Figures 9, 11, and 13 include standardized estimates, which will be used to discuss the relationships among femininity ideology, overt aggression, age, and Latina status. The models' covariance matrices and corresponding means and standard deviations are reported in Tables 10-12 in Appendix B. Model modifications were not used.

The model for *pure* overt aggression achieved model fit based on CFI and RMSEA (χ^2 = 142.23, p = .001; CFI = .917; RMSEA = .05, CI = .03, .06). The model for *instrumental* overt aggression also achieved model fit based on CFI and RMSEA (χ^2 = 123.64, p = .03; CFI = .944; RMSEA = .04, CI = .01, .05). The model for *reactive* overt aggression achieved model fit based on CFI and RMSEA (χ^2 = 152.12, p < .001; CFI = .919; RMSEA = .05, CI = .04, .07). Therefore the standardized estimates can be interpreted for each model to characterize the relationships between femininity ideology and overt aggression, controlling for age and ethnicity. In each model, overt aggression was regressed on inauthentic self in relationships and body objectification, controlling for age and Latina status.

The standardized estimates for the paths between pure overt aggression and inauthentic self in relationships and body objectification are non-significant (p = .262 and p = .151, respectively). Again, the standardized estimates for the paths between instrumental overt

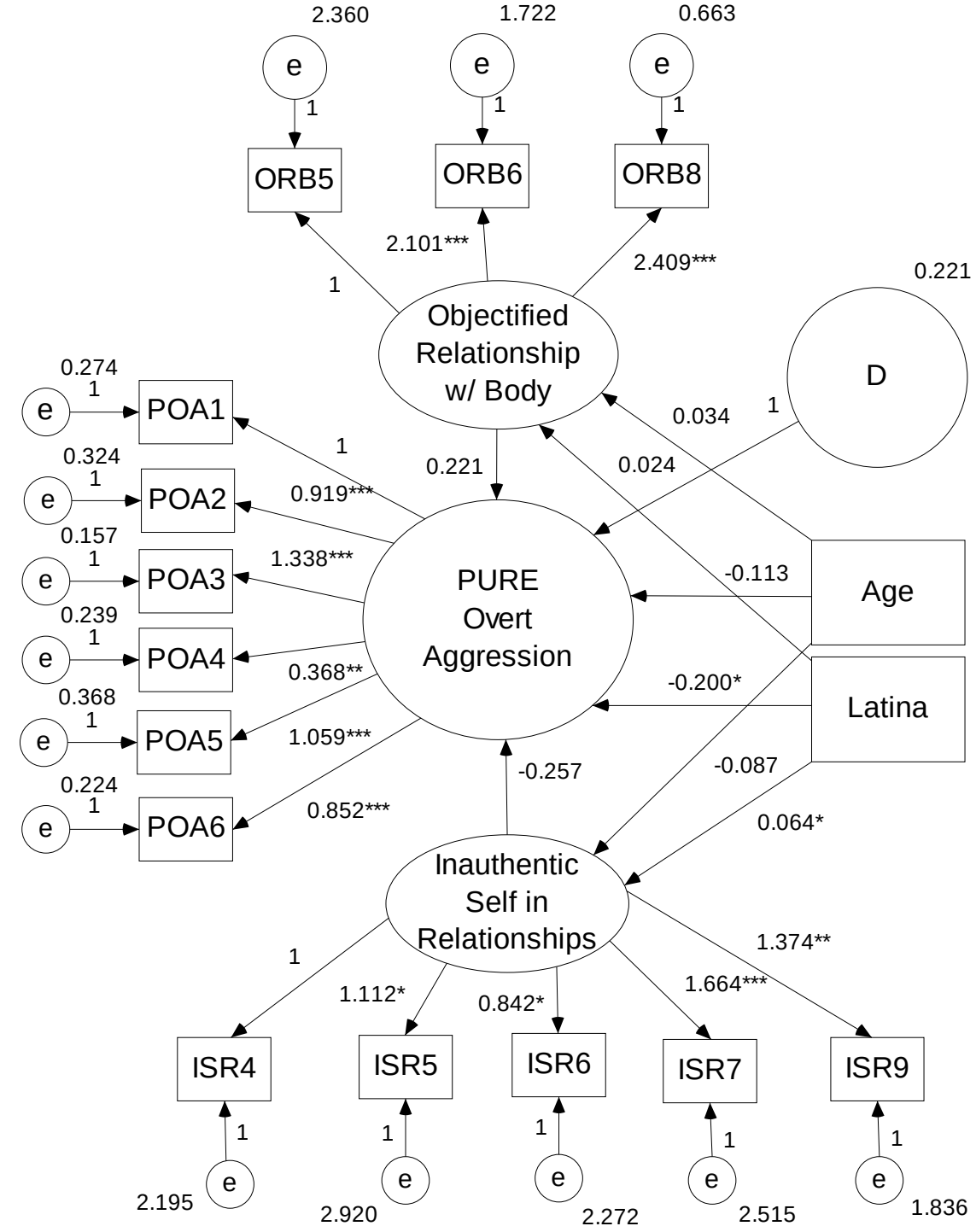
aggression and inauthentic self in relationships and body objectification are again non-significant (p = .184 and p = .262, respectively). The standardized estimates for the paths between reactive overt aggression and inauthentic self in relationships and body objectification are also non-significant (p = .290 and p = .269, respectively). Therefore, the second hypothesis characterizing the relationships between femininity ideology and pure, instrumental, and reactive overt aggression was not supported.

As found with the relational aggression models, the relationships, although non-significant, between body objectification and pure, instrumental, and reactive overt aggression were positive suggesting that higher rates of body objectification are related to higher rates of overt aggression. Again, the relationships between inauthentic self in relationships and overt aggression were negative suggesting that higher rates of inauthentic self may be related to lower rates of overt aggression.

Similar to relational aggression, several significant relationships were found in each model with the covariates of age and Latina status. Age was significantly associated with inauthentic self in relationships in the pure overt aggression model (p = .038), instrumental overt aggression model, (p = .039), and reactive overt aggression model (p = .040). As age increases, inauthentic self in relationships scores decrease again suggesting that older girls report lower rates of inaunthenticity in their relationships. Latina status was significantly associated with inauthentic self in relationships in each overt aggression model (p = 0.21). Being Latina results in an increase in scores on the inauthentic self in relationships scale suggesting that Latina girls report higher rates of inauthenticity when compared to their Non-Latina counterparts. Furthermore, Latina status was significantly related to pure overt aggression (p = .031), indicating that Latina girls in this sample are more likely to report higher rates of pure overt aggression in comparison to Non-Latina girls.

Figure 8

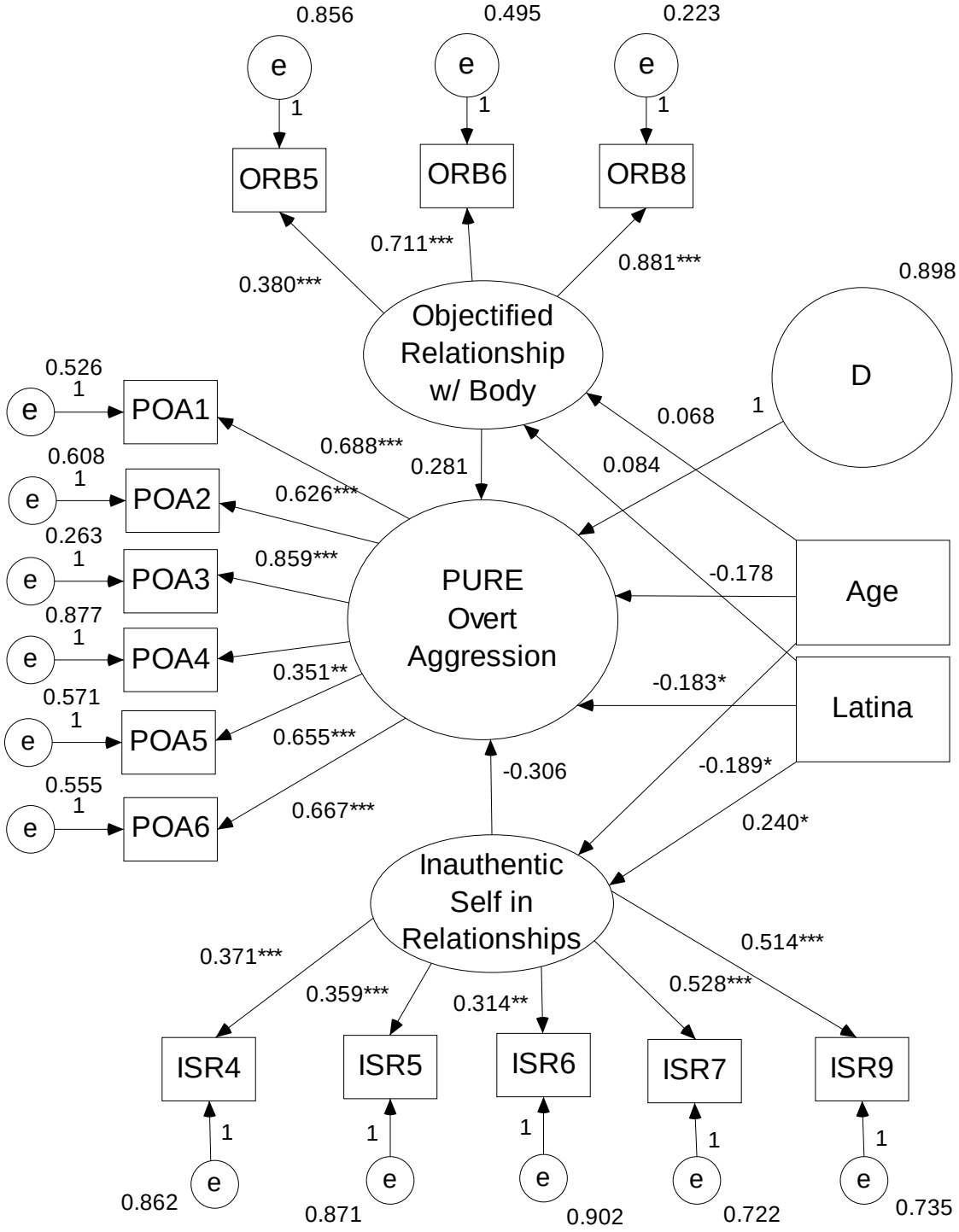
Final Structural Model: Pure Overt Aggression with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 9

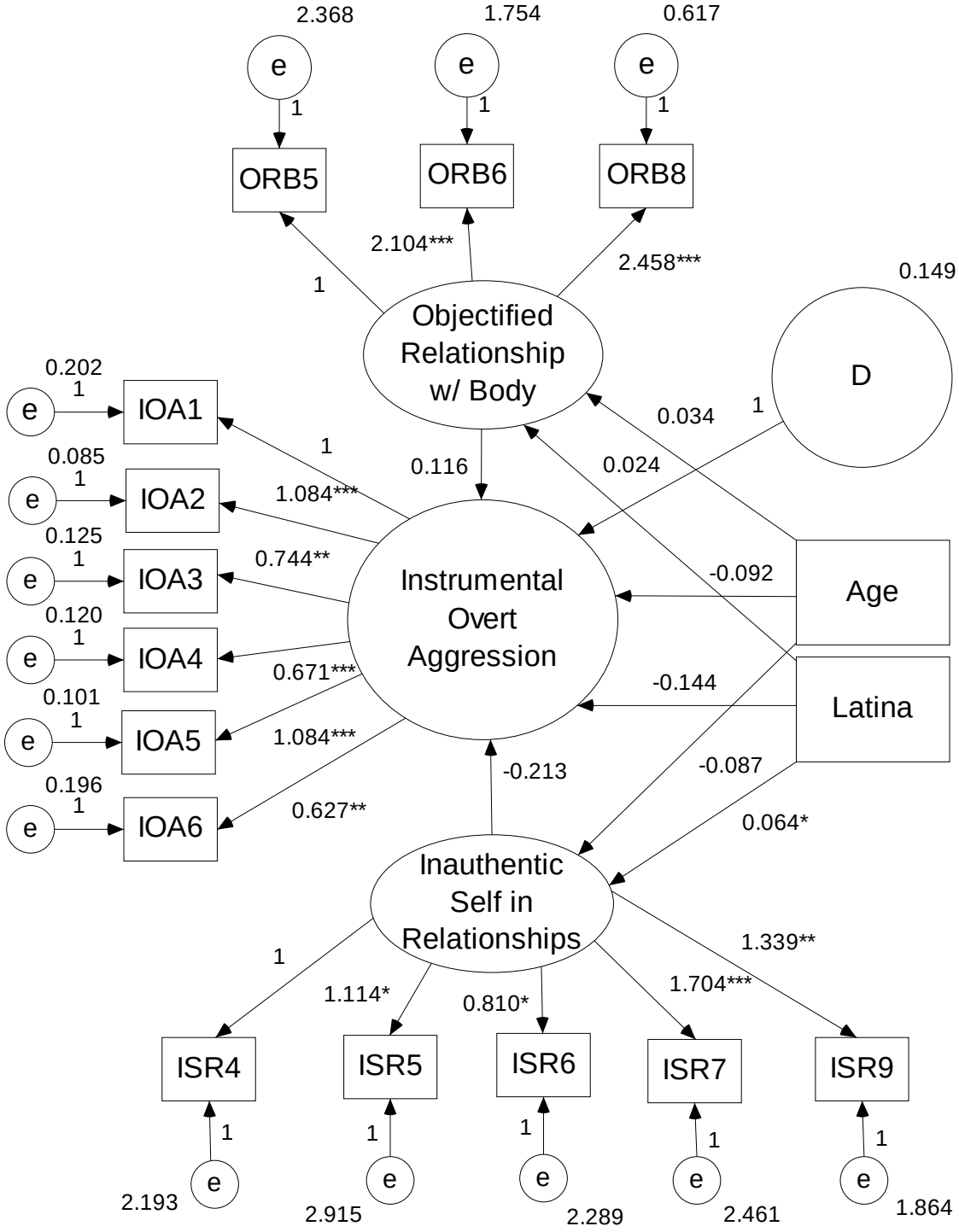
Final Structural Model: Pure Overt Aggression with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 10

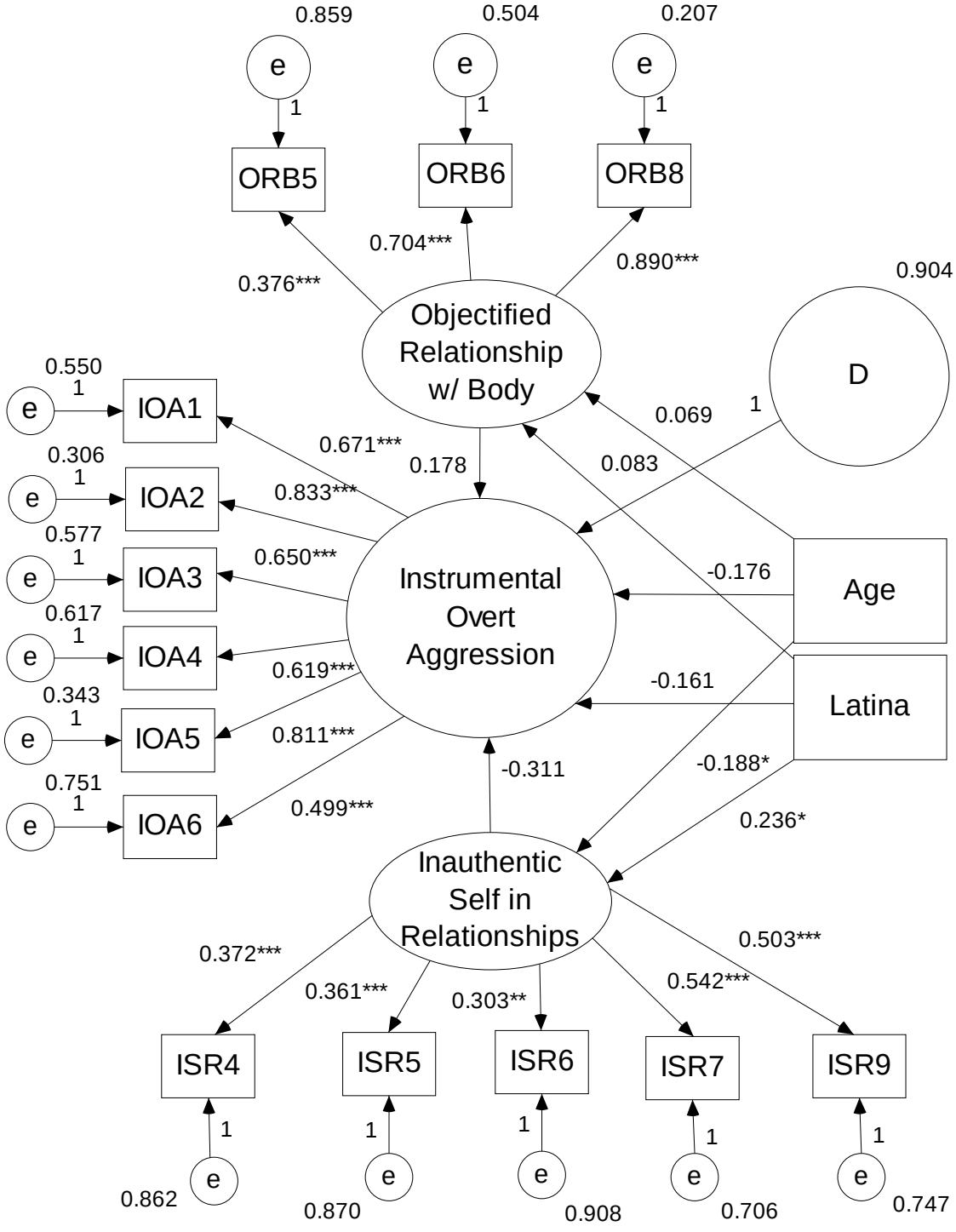
Final Structural Model: Instrumental Overt Aggression with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 11

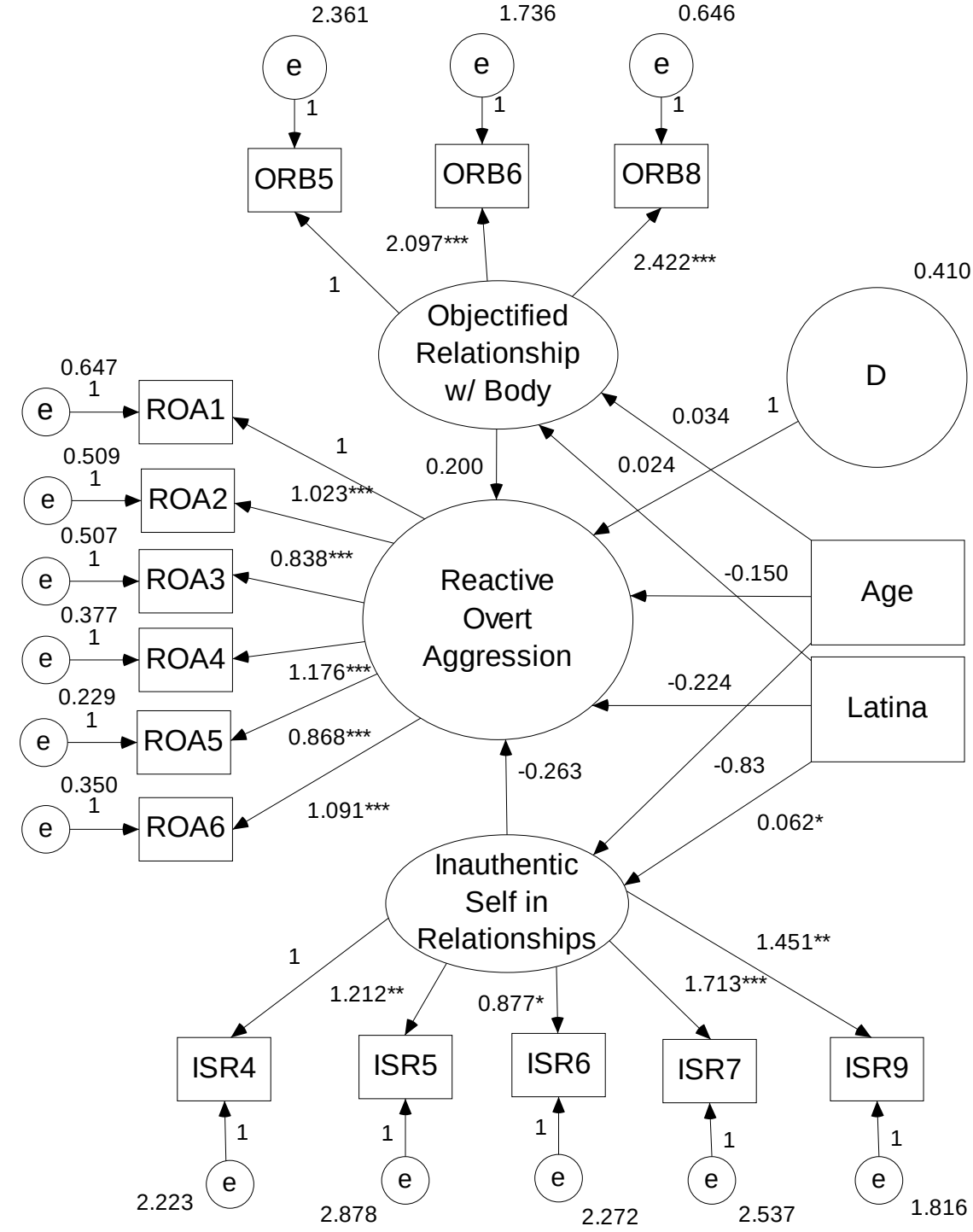
Final Structural Model: Instrumental Overt Aggression with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 12

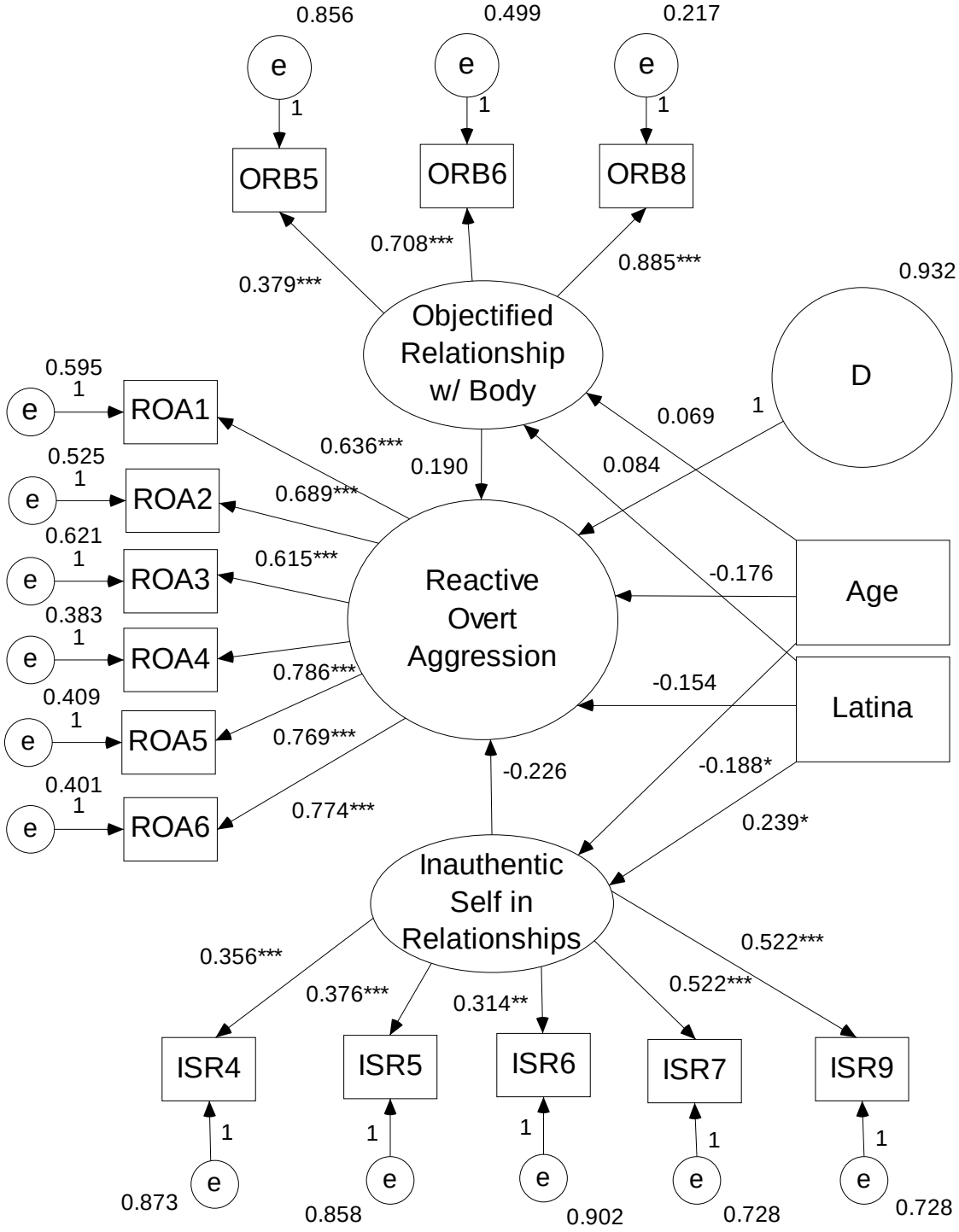
Final Structural Model: Reactive Overt Aggression with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 13

Final Structural Model: Reactive Overt Aggression with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Peer Victimization

The final hypothesis tested for peer victimization was: Higher rates of internalized femininity ideologies (inauthenticity and body objectification) will be positively related to peer victimization after controlling for the effects of age and ethnicity. The structural equation model for this outcome is specified in Figures 14 and 15. Figure 14 reports unstandardized estimates. Figure 15 includes standardized estimates, which will be used to discuss the relationships among femininity ideology, peer victimization, age, and Latina status. The model's covariance matrix and corresponding means and standard deviations are reported in Table 13 in Appendix B. As with the other specified models, no modifications were used.

The model for peer victimization achieved model fit based on all three fit indices (χ^2 = 113.19, p = .111; CFI = .972; RMSEA = .03, CI = .00, .05); therefore the standardized estimates can be interpreted to characterize the relationships between femininity ideology and peer victimization, controlling for age and ethnicity. As shown in Figures 14 and 15, peer victimization scores were regressed on inauthentic self in relationships and body objectification, controlling for age and Latina status. While the unstandardized estimate approaches significance (p=.06), the standardized estimate is significant (p=.03), indicating a significant path between inauthentic self in relationships and peer victimization. Although quite close, this difference is likely due to the p value calculation, which is the ratio of the parameter estimate to its standard error. Unstandardized and standardized coefficients have different standard errors. Small differences between the variances are, therefore, expected and not a cause for concern.

The significant path between inauthentic self in relationships and body objectification indicates that, as inauthentic self in relationships scores increase, rates of peer victimization also increase. This finding indicates that girls who are more likely to be inauthentic in their relationships

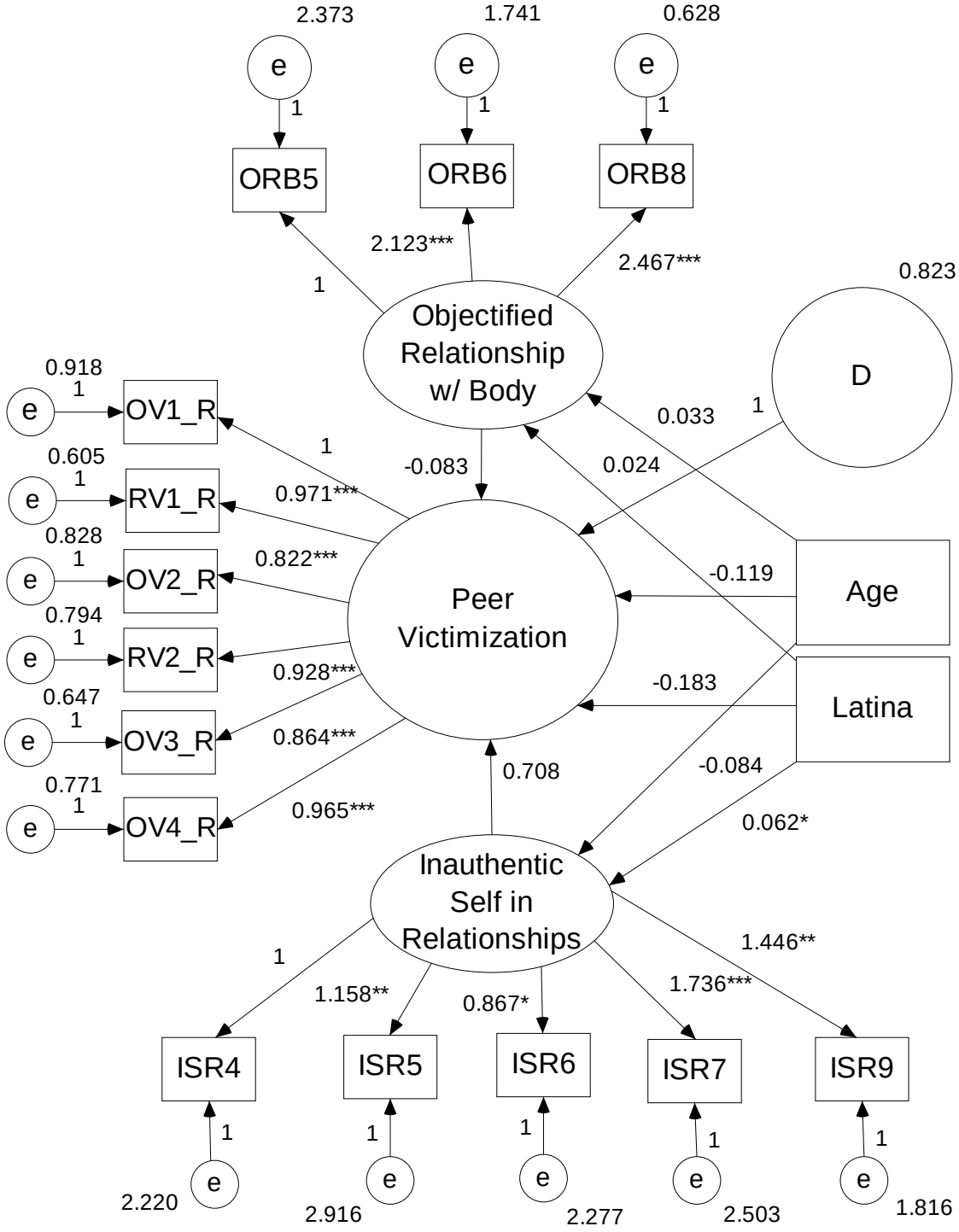
with others tend to report higher rates of peer victimization. Conversely, the standardized estimate for the path between peer victimization and body objectification was not significant ($p = .753$). Therefore, the third hypothesis is partially supported as a significant path was found between inauthenticity and peer victimization.

Interestingly, the relationships found between peer victimization and femininity ideology were opposite to those found in the aggression models. The relationship between peer victimization and inauthenticity in relationships was positive, indicating higher rates of inauthentic self are related to higher rates of peer victimization. Furthermore, the relationship between peer victimization and body objectification was negative, indicating higher rates of body objectification are related to lower rates of peer victimization.

As found with the relational and overt aggression models, age and Latina status was significantly associated with inauthentic self in relationships ($p = .038$; $p = .021$ respectively). Older girls in this sample report lower rates of inauthenticity in their relationships with others. Similarly, being Latina also results in higher rates of inauthenticity in their relationships with others.

Figure 14

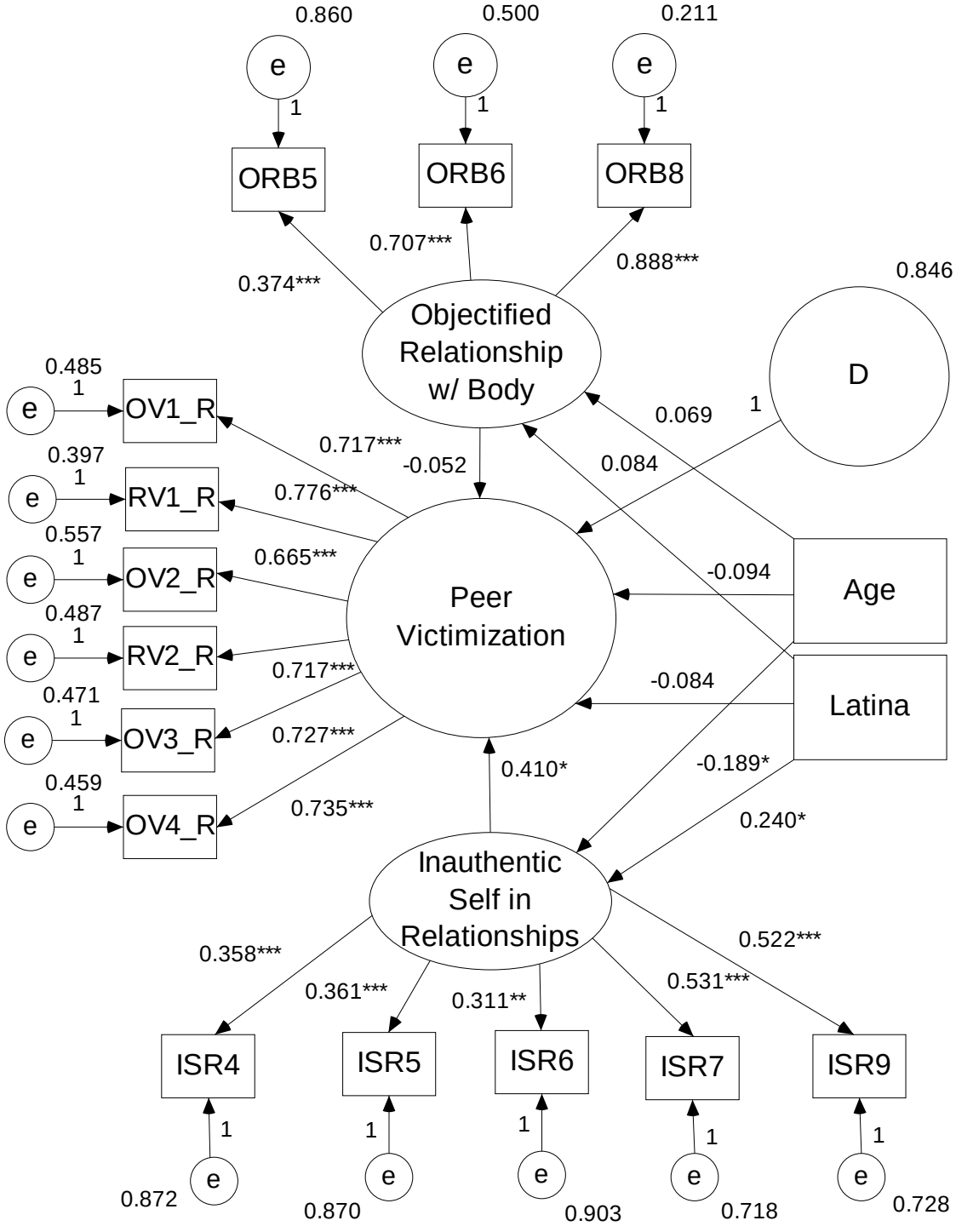
Final Structural Model: Peer Victimization with Unstandardized Estimates



*** p < .0001, ** p < .01, * p < .05

Figure 15

Final Structural Model: Peer Victimization with Standardized Estimates



*** p < .0001, ** p < .01, * p < .05

Summary

This chapter presented the results of the structural equation models characterizing the relationships among relational and overt aggression, peer victimization, and femininity ideology in a largely minority, low-income sample of eighth grade girls enrolled in five public middle schools in Denver. First, the sample's characteristics were described. A discussion of the preliminary descriptive analyses, including the screening for missing data, identification of outliers, establishment of normality, and verification other important assumptions was provided. Self-perceptions of aggressive behavior and rates of peer victimization were discussed to provide a context for understanding the structural equation model results. The chapter concluded with results from seven structural equation models for pure relational aggression, instrumental relational aggression, reactive relational aggression, pure overt aggression, instrumental overt aggression, reactive overt aggression, and peer victimization. A discussion of the practical significance of the findings and their implications for prevention and invention efforts is presented in the following chapter. Implications for social work practice and future research on girls' aggression are delineated.

CHAPTER 5

DISCUSSION

This study examined the relationship between gender socialization, specifically the internalization of gender ideologies as measured by inauthenticity in relationships and body objectification (Tolman & Porche, 2000), and overt and relational aggression and peer victimization among girls. Utilizing a feminist developmental perspective, this investigation aimed to 1) examine whether the degree to which young women internalize norms of femininity was related to overt and relational aggression and peer victimization; 2) determine if girls used certain forms of aggressive behavior to *adhere* to these norms or *reject* them; and 3) understand if girls who were victimized were more likely than other girls to internalize such norms.

The following chapter integrates the results presented in Chapter 4 with current literature on girls' aggression and peer victimization. The discussion seeks to enhance understanding of the factors that are relevant to girls' use of aggressive behavior and their experiences with peer victimization. Following an overview of key findings, implications for existing theory and empirical research are discussed. Considerations for social work practice are noted. The chapter concludes with directions for future research and the methodological limitations of the study.

Key Findings

The present study tested three hypotheses using structural equation modeling to examine the fit of several hypothesized theoretical models, characterizing the relationships between femininity ideology, aggression and peer victimization, to the observed data. The first hypothesis

tested whether higher rates of internalized femininity ideologies (inauthenticity and body objectification) were positively related to relational aggression (pure, reactive, and instrumental) after controlling for the effects of age and ethnicity. The second hypothesis examined if higher rates of internalized femininity ideologies (inauthenticity and body objectification) were negatively related to overt aggression (pure, reactive, and instrumental) after controlling for the effects of age and ethnicity. Neither of these hypotheses was supported in the present study.

Feminist writers, such as Brown (2003), argue that "girlfighting" is girls' attempt to negotiate contradictory demands between being "good" and "bad" by using aggressive tactics to create social structure and dictate access to power. Interestingly, little support was found in this study to link the internalization of norms of femininity and girls' aggressive behavior. In fact, no significant relationships were found between rates of internalized femininity ideologies and relational and overt aggression.

One explanation for these findings may be that these particular gender ideologies, while shown to be important to girls' mental and sexual health (Impett et al., 2006; Tolman et al., 2006), are less relevant for girls' aggressive behavior. An inability to express anger appears to be more related to peer victimization than to girls' aggression based on the significant path found between inauthentic self in relationships and peer victimization. Body objectification appears to be unrelated to both aggressive behavior and peer victimization because no significant paths were found between body objectification and any of the aggression or victimization outcomes in this study.

A second potential explanation for the lack of significance with regard to the aggression outcomes may lie in the unique features of the sample. For example, the majority of girls surveyed were of Latina ethnicity. In addition, a high percentage of participants were classified as lower income status as measured by maternal level of education and free lunch participation. Finally, the

femininity ideology measure was previously used with primarily White, middle class samples. It may be that the items contained in these measures contain some cultural bias that made them less relevant to the study's sample.

Similarly, it is possible that the gender ideologies assessed in this study are less relevant for minority populations, particularly Latina girls. Some authors have suggested that gender norms among Latina girls are expressed and internalized differently than among White, middle-class girls (Kasturirangan & Williams, 2003; Raffaelli & Ontai, 2004). Therefore, inauthentic self in relationships with others and body objectification may be not be the most appropriate ideologies because they may be culturally biased towards White, middle class values. One limitation discussed later in this chapter is that the degree of acculturation to dominant American values among the Latina girls participating in this study was not assessed. Level of acculturation may be an important mediator to how gender ideologies are internalized and may relate to Latina girls' aggressive behavior.

Although non-significant, the relationships found between body objectification and pure, instrumental, and reactive relational and overt aggression were positive. These findings suggest that higher rates of this particular ideology are related to higher rates of aggression. However, the relationships between inauthentic self in relationships and relational and overt aggression, while all non-significant, were negative. This may imply that higher rates of this internalized femininity ideology may be related to lower rates of aggression. One potential explanation for this finding is that girls who are inauthentic in their relationships may be less assertive and therefore less likely to engage in aggressive behavior than other girls.

Several significant relationships were found in each model with the covariates of age and Latina status. Age was significantly associated with pure, instrumental, and reactive relational

aggression, but not to pure, instrumental, and reactive overt aggression. As age increased, relational aggression scores decreased, a finding that is contrary to that noted previous studies (Bjorkqvist et al., 1992; Crick et al., 1996). Furthermore, as age increased, inauthentic self in relationships scores decreased, suggesting that older girls report lower rates of this internalized femininity ideology. These findings may be interpreted in a developmental context. For example, puberty creates dramatic shifts in self-concepts as physical appearance begins to change and the focus in relationships turns more significantly towards peers (Steinberg, 2005). Perhaps as girls mature they develop new skills in negotiating peer relationships that fosters greater authenticity in their relationships.

Latina status was significantly associated with inauthentic self in relationships in each model. Being Latina resulted in an increase in scores on the inauthentic self in relationships scale, suggesting that Latina girls report higher rates of this internalized femininity ideology when compared to their Non-Latina counterparts. This suggests that gender norms may be expressed and internalized differently for Latina girls than for Non-Latina girls. Several authors have described distinct gender socialization patterns in Latino families that tend to promote rigid adherence to traditional gender roles (Kasturirangan & Williams, 2003; Raffaelli & Ontai, 2004). For example, they describe several cultural values that impact the ways in which gender norms are communicated in Latino families, including *familsmo* and *respeto*. *Familsmo* emphasizes family relationships and places a strong value "on childbearing as an integral part of family life and the feminine gender role" (Raffaelli & Ontai, 2004, p. 288). *Respeto* refers to the value of respect and emphasizes the "hierarchy in social relationships" (Raffaelli & Ontai, 2004, p. 288). The combination of these cultural values bear particular significance for Latina girls as they embody an

idealized feminine gender role that involves being “submissive, chaste, and dependent” (Raffaelli & Ontai, 2004, p. 288).

These values may have important implications for the current study. For example, if Latina girls are encouraged to be submissive to or dependent on males, they may be less likely to be assertive in their relationships with others. This norm appears similar to norms communicated to girls from other cultural backgrounds. Therefore, there may be a consistent theme related to inauthenticy in relationships in gender socialization practices that transcends culture. However the way in which it manifests may be different depending on a girls’ cultural background.

Interestingly, Latina status was significantly also related to pure overt aggression, indicating that Latina girls in the sample were more likely to report pure overt aggression when compared to Non-Latina girls. This finding seems in direct opposition to the gender socialization patterns within Latina families, which suggests that Latina girls may use overt aggressive behavior in an attempt to reject norms. As suggested by Brown (2003), girls may engage in physical fighting as a way to access power and become the subject rather than the object of their own experiences. However, the question remains if girls who engage in physical fighting are overcoming these cultural standards of femininity or just becoming “more like boys.” Further study is necessary to answer this question.

The final hypothesis tested in this study was whether higher rates of internalized femininity ideologies (inauthenticity and body objectification) were positively related to peer victimization after controlling for the effects of age and ethnicity. Partial support for this hypothesis was determined. A significant relationship was found between inauthentic self in relationships with others and peer victimization. As inauthentic self in relationships scores increased, rates of peer victimization also increased. This finding suggests that girls in the sample who were more likely to be inauthentic in

their relationships with others tended to report higher rates of peer victimization than other girls. The definition of peer victimization implies a power differential between the aggressor and victim because the aggressor exerts actual or perceived power over a weaker victim who struggles defending herself (Olweus, 2001). Thus, a girl who is less authentic or assertive in her relationships with others may be particularly vulnerable to peer victimization.

Additionally, the relationship between peer victimization and body objectification was negative, indicating that higher rates of body objectification were related to lower rates of peer victimization. Perry et al. (2001) suggest that physical attributes are less likely to be causes of victimization when compared to other correlates of peer victimization. They note that the most likely physical attribute to predict victimization is physical weakness, particularly among boys (Perry et al., 2001). However, body objectification does not characterize a physical weakness but rather a preoccupation with one's physical appearance and does not appear to relate to rates of peer victimization among the study's participants.

As found with the relational and overt aggression models, age and Latina status were significantly associated with inauthentic self in relationships. Older girls in this sample report lower rates of inauthenticity in their relationships with others than younger girls. Similarly, being Latina also results in higher rates of inauthenticity in relationships with others. Explanations for these findings are similar as described for the aggression models. That is, as girls mature they may develop new skills in negotiating peer relationships that fosters greater authenticity in their relationships. Furthermore, if Latina girls are encouraged to be submissive to or dependent on males they may be less likely to be assertive in their relationships with others.

Theoretical and Empirical Implications

Implications for the study's findings for the feminist theory and empirical research are discussed below. The results of this investigation highlight the importance of understanding the experience of low-income, minority girls' experiences with aggression, peer victimization, and gender socialization. The lack of significance found for the aggression outcomes in this study suggest that the particular femininity ideologies assessed here may not fully capture how gender socialization occurs among this diverse sample. Theoretically, feminist writers need to be mindful of potential cultural differences of how gender norms and ideologies may be expressed within families and subsequently internalized by adolescent girls. Little research to date has specifically examined differences in gender socialization and the internalization of feminine norms in largely minority or low-income samples. This limits our understanding of how girls from different social locations may experience gender socialization and the manner in which they may internalize such messages.

Brown (2003) suggests that there are commonalities across groups which illuminate the impact of gender socialization and its complex intersection with race, ethnicity, and class. However, important differences exist that must be further explored. For example, Raffaelli and Ontai (2004) note that research on gender socialization has seldom focused on ethnic differences. This may be particularly valid in the context of the current study because level of acculturation experienced by Latina adolescents may have a significant impact on the ways in which they experience gender socialization. It may also affect how girls internalize certain messages of femininity. Understanding the potential mediating relationship between level of acculturation and gender socialization is a critical direction for enriching our theoretical and empirical understanding of femininity.

Several important research implications are evident. Empirical studies that focus on gender socialization and the potential link with girls' aggressive behavior must include higher

percentages of low-income and minority adolescents. A growing body of literature has focused on the experiences of low-income, minority samples, particularly in the study of overt aggression and in juvenile justice settings. However, less research has focused on the experiences low-income, minority samples with relational aggression and even less research has examined the impact of gender socialization on aggressive behavior and peer victimization among these samples. Another important direction for future research must be to diversify the samples under study to increase our knowledge of relational aggression and the possible influence of gender socialization on aggressive behavior and peer victimization.

Furthermore, longitudinal designs must be used to enhance understanding of the developmental trajectories of overtly and relationally aggressive and victimized girls. In particular, research has only recently begun to focus on the developmental pathways for relational aggression and key factors that may influence these pathways. Geiger et al. (2004) note that relatively few empirical studies have examined the precursors of relational aggression and no studies to date have used designs rigorous enough to identify the direction of effect. Also, critical for these investigations is the need to consistently define and measure relational aggression in order to fully understand mechanisms useful in preventing this problem behavior among girls. Importantly, future research must focus on how certain individual and social traits may influence the trajectories of relationally aggressive and victimized girls. Enhancing knowledge of important correlates and antecedents of relational aggression and their impact of the developmental trajectories of aggressive and victimized girls is necessary for the design of successful prevention and intervention strategies. Further, evidence from the field of prevention science suggests that prevention strategies aimed at the individual, classroom, and school levels are shown to be most effective in reducing aggression, bullying, and victimization. Thus, it will be important to measure

and model multiple levels of influence on aggressive behavior and victimization using advanced analytical techniques.

Implications for Social Work Practice

Social work presents an important arena for furthering prevention science. However, as noted by Jenson (2006), few social work researchers have conducted rigorous controlled trials of prevention and intervention strategies designed to reduce problem behavior among youth. An important direction for social work is to develop and test such strategies to inform practice with children and adolescents. Hawkins (2006) articulates several key phases of research important to prevention science and social work practice. First, we must understand the epidemiology of aggressive behavior including its prevalence. Secondly, further understanding of the etiology of aggressive behavior, particularly among girls, is needed to understand significant correlates that may influence positive or negative developmental trajectories. Knowledge of key factors that may influence the onset and maintenance of aggressive behavior among girls then must be used to inform the development of prevention and intervention strategies. Therefore, efficacy and effectiveness trials of these approaches must follow and then be disseminated in the field of social work to inform practice with girls.

Intervention and prevention approaches developed for social work practice must also include considerations of the unique experiences of low-income and minority populations. The sample characteristics in the present study highlight the critical need to enhance understanding of how gender socialization, aggression, and victimization may be experienced by girls from different social locations. Furthermore, the findings of this study suggest that gender socialization, specifically having an inauthentic self in relationships with others, may be an important factor in

preventing and intervening with peer victimization. If girls are more likely to be inauthentic, they may be less likely to assert their needs and desires, therefore placing them at a heightened risk for being victimized by their peers. Social work interventions designed to prevent aggressive behavior and peer victimization among girls may increase girls' efficacy by including program elements designed to assist them in becoming more assertive.

In future research, prevention and intervention approaches that include program components that specifically target this feature of gender socialization and the link to heightened risk of peer victimization must be designed and rigorously tested. From a feminist perspective, girls' development must be considered within a community or societal context that promotes patriarchal norms and, therefore, rigid adherence to certain standards of femininity (Brown, 2003; Impett et al., 2006; Miller & Scholnick, 2000; Tolman et al., 2006). When describing aggressive behavior and peer victimization among girls, this unique developmental context must inform postulations about the causes, correlates, and consequences of these behaviors. Social work interventions are more likely to be effective with girls when their unique social context is taken into consideration. Furthermore, these interventions will be more effective with diverse groups of girls when important cultural differences in the ways in which patriarchal norms and values are experienced by low-income and minority populations are considered.

Study Limitations

Several limitations exist in the present study. First, the cross-sectional design used in this study only provides a point in time examination of complex behaviors and socialization practices. Significant transitions in identity development occur after the onset of puberty and in early adolescence (Zaff & Hair, 2003; Steinberg, 2005). Therefore, a cross-sectional assessment of how feminine ideals may be internalized by young girls does not allow for a comprehensive

understanding of the impact of these ideals on girls' development or on their experiences with aggression and peer victimization. The cross-sectional nature may also have contributed to the lack of significance found between femininity ideology and aggressive behavior. Longitudinal designs are necessary to fully understand identity development among adolescents. By following girls over time our understanding of how these feminine ideals are internalized and may influence identity development can be illuminated. From this understanding, the potential relationship between the internalization of these ideals and girls' aggressive behavior and experiences with peer victimization may become clearer. Finally, cross-sectional data and lack of random sampling limit the generalizability of the study's findings. The results offer some evidence that the internalization of certain feminine ideals may be important to consider in the context of peer victimization. However, this finding must be verified by additional empirical research that includes longitudinal data collection.

The most significant methodological limitation of this study is likely the confirmatory factor analysis (CFA) results for the inauthentic self in relationships scale. The inauthentic self in relationships scale, even after removing low loading items, barely achieved adequate fit based on the RMSEA value. Although CFAs had been performed previously on these measures (Tolman et al., 2006), the original factor structure could not be verified, bringing the scales' validity into question. The problem noted with the scale's factor structure introduces significant measurement error into the structural equation models and therefore casts some doubt on the integrity of the study's findings. A potential explanation for these measurement issues, as discussed above, is the unique features of the study's samples. Perhaps, the items on these measures are not relevant for a largely low-income, Latina sample. Regardless, future studies should pay close attention to these measurement issues.

Conclusion

This study provides a promising new direction for understanding girls' aggressive behavior and their experiences with peer victimization. Although significant methodological limitations exist, the results of the investigation highlight the importance of considering girls' unique social context, the options available to girls to access power and privilege, and the prevailing cultural norms surrounding femininity. The unique patterns of gender socialization, coupled with the impact of patriarchal norms that promote strict adherence to femininity ideologies, imply the features and functions of aggression, and consequently victimization, for girls may differ from boys. This study provides some support to suggest that the way in which girls internalize feminine ideals is an important contextual consideration for understanding risk for aggression and victimization. The significant social and individual consequences of these behaviors on girls' development require the development and testing of intervention and prevention approaches specific to girls and their social context. The findings of this study may offer new and valuable considerations for the development of such intervention and prevention strategies.

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Appendix A

SURVEY

PLEASE READ THESE INSTRUCTIONS FIRST.

This is not a test – there are no right or wrong answers.

This is a chance for you to look at how you think and feel about yourself. You answers will be kept confidential and will only be used for research purposes. Your answers will not be used in ANY way to refer to you as an individual.

It is important that you:

- Are honest
- Give your own views about yourself, without talking to others
- Report how you feel NOW (not how you felt at another time in your life, or how you might feel tomorrow)
- Not leave questions BLANK.

1. How old are you? _____years old

2. I would identify myself as (please mark the answer that best suits you):

American Indian/Alaskan Native _____
Asian/Pacific Islander _____
Black/African American _____
Latina _____
White-Non-Latina _____
Multi-Racial _____
Other (Please specify): _____

3. Please indicate the highest level of formal education achieved by your mother or female guardian:

Did not finish High School _____
Finished high school/Obtained GED _____
Completed some college _____
Finished a four-year college degree _____
Attended school beyond college _____

4. I participate in a free or reduced lunch program:

Yes _____
No _____

Please select the answer that best fits you.

1. Do you have a computer in your home? **1 -** YES **2 -** NO
2. Do you have a cell phone? **1 -** YES **2 –** NO

Please indicate how often you do the following.	1 Never	2 Sometimes	3 Often	4 Very Often
3. Watch TV				
4. Browse the internet				
5. Use myspace.com, facebook.com or another social networking site.				
6. Text Message				
7. Listen to the radio				

Please indicate how much you agree or disagree with the following statements.	1 Strongly Disagree	2 Somewhat Disagree	3 Slightly Disagree	4 Slightly Agree	5 Somewhat Agree	6 Strongly Agree
8. I would tell a friend I think she looks nice, even when I think she shouldn't go out of the house dressed like that.						
9. I think that a girl has to be thin to feel beautiful.						
10. I would not change the way I do things in order to please someone else.						
11. I tell my friends what I honestly think even when it is an unpopular idea.						
12. I am more concerned about how my body looks than how my body feels.						
13. I wish I could say what I feel more often than I do.						
14. The way I decide I am at a good weight is when I feel healthy.						
15. When my friends ignore my feelings, I think that my feelings weren't very important anyway.						
16. There are times when I have really good feelings about my body.						

Please indicate how much you agree or disagree with the following statements.	1 Strongly Disagree	2 Somewhat Disagree	3 Slightly Disagree	4 Slightly Agree	5 Somewhat Agree	6 Strongly Agree
17. The way I can tell that I am at a good weight is when I fit into a small size.						
18. I often wish my body were different.						
19. I worry that I make others feel bad if I am successful.						
20. I think a girl has to have a light complexion and delicate features to be thought of as beautiful.						
21. Often I look happy on the outside in order to please others, even if I don't feel happy on the inside.						
22. I often feel uncomfortable in my body.						
23. I usually tell my friends when they hurt my feelings.						
24. I feel like it's my fault when I have disagreements with my friends.						

Please indicate how true these statements are about you.	1 Not at all true	2 Kind of true	3 Mostly true	4 Completely true
25. I'm the kind of person who tells my friends to stop liking someone.				
26. When I'm hurt by someone, I often fight back.				
27. If others make me upset or hurt me, I often put them down.				
28. I'm the kind of person who puts others down.				
29. If others have angered me, I often hit, kick, or punch them.				
30. I often start fights to get what I want.				

Please indicate how true these statements are about you.	1 Not at all true	2 Kind of true	3 Mostly true	4 Completely true
31. I'm the kind of person who hits, kicks, or punches others.				
32. When I'm threatened by someone, I often threaten back.				
33. I'm the kind of person who gossips or spreads false rumors.				
34. I'm the kind of person who says mean things to others.				
35. To get what I want, I often hurt others.				
36. If others make me mad or upset, I often hurt them.				

Please indicate how true these statements are about you.	1 Not at all true	2 Kind of true	3 Mostly true	4 Completely true
37. I'm the kind of person who takes things from others.				
38. I often threaten others to get what I want.				
39. I often hit, kick, or punch others to get what I want.				
40. To get what I want, I often put others down.				
41. I'm the kind of person who often fights with others.				
42. When I am angry at others, I often tell them I won't be their friend anymore.				

Please indicate how true these statements are about you.	1 Not at all true	2 Kind of true	3 Mostly true	4 Completely true
43. I often tell my friends to stop liking someone to get what I want.				
44. I'm the kind of person who tells others I won't be their friend anymore.				
45. I'm the kind of person who keeps others from being in my group of friends.				
46. If others have hurt me, I often keep them from being in my group of friends.				
47. I'm the kind of person who ignores others or stops talking to them.				
48. When I'm hurt by others, I often get back at them by saying mean things to them.				

Please indicate how true these statements are about you.	1 Not at all true	2 Kind of true	3 Mostly true	4 Completely true
49. If others upset or hurt me, I often tell my friends to stop liking them.				
50. If others have threatened me, I often say mean things about them.				
51. To get what I want, I often gossip or spread rumors about others.				
52. I'm the kind of person who threatens others.				
53. When I am upset with others, I often ignore or stop talking to them.				
54. When I am mad at others, I often gossip or spread rumors about them.				

Please indicate how true these statements are about you.	**1 Not at all true**	**2 Kind of true**	**3 Mostly true**	**4 Completely true**
55. To get what I want, I often say mean things to others.				
56. I often say mean things about others to my friends to get what I want.				
57. I often keep others from being in my group of friends to get what I want.				
58. To get what I want, I often tell others I won't be their friends anymore.				
59. To get what I want, I often ignore or stop talking to others.				
60. I'm the kind of person who says mean things about others.				

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
61. Math is one of my best subjects.						
62. I have a nice looking face.						
63. Overall, I have a lot to be proud of.						
64. I sometimes take things that belong to other people.						
65. I enjoy things like sports, gym, and dance.						
66. I do badly on tests that need a lot of reading ability.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
67. I worry more than I need to.						
68. I get along well with my parents.						
69. I get bad grades in most school subjects.						
70. I make friends easily with other girls.						
71. Boys whom I like don't like me.						
72. I often need help in math.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
73. I hate the way I look.						
74. Most things I do, I do well.						
75. I am honest.						
76. I am good at things like sports, gym, and dance.						
77. Work in English classes is easy for me.						
78. I don't get upset very easily.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
79. My parents treat me fairly.						
80. I learn things quickly in most school subjects.						
81. I do not get along very well with other girls.						
82. I am not very popular with boys.						
83. I have always done well in math.						
84. Other people think I'm good looking.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
85. Overall, most things I do turn out well.						
86. I sometimes tell lies to stay out of trouble.						
87. I am awkward at things like sports, gym, and dance.						
88. English is one of my best subjects.						
89. I am often depressed and down in the dumps.						
90. I have trouble with most school subjects.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
91. Most girls try to avoid me.						
92. I do not get along very well with boys.						
93. I hate math.						
94. I have a good looking body.						
95. I can do things as well as most people.						
96. I sometimes cheat.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
97. I am better than most of my friends at things like sports, gym, and dance.						
98. I get good grades in English.						
99. I am a nervous person.						
100. I am good at most school subjects.						
101. I have a few friends of the same sex as myself.						
102. I have lots of friends who are boys.						

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is about you.	**1 False** Not like me at all	**2 Mostly False**	**3 More False than True**	**4 More True than False**	**5 Mostly True**	**6 True** This is very much like me
103. If I really try I can do almost anything I want to do.						
104. When I make a promise I keep it.						
105. I learn things quickly in English class.						
106. I worry about a lot of things.						
107. My parents understand me.						
108. I enjoy spending time with my friends of the same sex.						
109. Overall, I am a failure.						
110. I often tell lies.						
111. I do not like my parents very much.						

This set of questions asks about bullying in your school.

What does bullying mean:

"We say a student is being bullied when another student or several other students

- Say mean and hurtful things, make fun of them or call them mean and hurtful names
- Completely ignore or exclude them from their group of friends or leave them out of things on purpose
- Hit, kick, push, shove around, or threaten them
- Tell lies or spread false rumors about them or send mean notes and try to make other students dislike them
- And do other hurtful things like that"

Have you been bullied at school in the past month in one or more of the following ways?

	1 Several times a week	2 About once a week	3 2 or 3 times a month	4 Only once or twice	5 It hasn't happened to me in the past month
112. I was called mean names, was made fun of, or teased in a hurtful way					
113. Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me					
114. I was hit, kicked, pushed, or shoved around					
115. Other students told lies or spread false rumors about me and tried to make others dislike me					
116. I had money or other things taken away from me or damaged					
117. I was threatened or forced to do things I didn't want to do					

THANK YOU FOR YOUR TIME!

Appendix B

Structural Equation Model Covariance Matrices

Tables 7 – 13

Table 7

Variance-Covariance Matrix with Means and Standard Deviations for Pure Relational Aggression Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. ISR4	2.54														
2. ISR5	0.19	3.35													
3. ISR6	0.26	0.50	2.52												
4. ISR7	0.87	0.60	0.38	3.48											
5. ISR9	0.32	0.88	0.49	0.61	2.50										
6. ORB5	0.33	0.66	0.44	0.68	0.69	2.76									
7. ORB6	0.56	0.33	0.24	0.81	0.69	0.88	3.48								
8. ORB8	0.55	0.73	0.49	1.15	0.75	0.90	2.03	2.97							
9. PRA2	-0.13	0.02	-0.05	-0.06	-0.04	-0.06	-0.07	-0.02	0.29						
10.PRA3	0.01	0.00	-0.01	-0.14	-0.10	0.00	-0.05	-0.09	0.11	0.39					
11. PRA4	-0.16	0.08	-0.03	-0.04	-0.08	0.04	-0.02	-0.04	0.07	0.19	0.43				
12. PRA5	0.09	0.01	-0.01	0.18	-0.18	0.18	0.14	0.19	0.09	0.19	0.22	0.73			
13. PRA6	-0.07	0.10	-0.02	-0.11	-0.11	-0.01	0.00	0.09	0.10	0.12	0.17	0.25	0.54		
14. Age	-0.08	-0.02	-0.06	-0.15	-0.17	-0.23	0.10	0.10	-0.02	-0.05	-0.11	-0.07	-0.05	0.61	
15. Latina	0.05	0.01	0.10	0.08	0.13	-0.04	0.06	0.06	-0.03	0.00	-0.01	-0.01	-0.05	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	1.22	1.26	1.31	1.66	1.39	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	0.53	0.62	0.65	0.86	0.73	0.78	0.46

Table 8

Variance-Covariance Matrix with Means and Standard Deviations for Instrumental Relational Aggression Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ISR4	2.54															
2. ISR5	0.18	3.35														
3. ISR6	0.27	0.49	2.52													
4. ISR7	0.87	0.60	0.38	3.48												
5. ISR9	0.32	0.88	0.48	0.61	2.50											
6. ORB5	0.34	0.66	0.45	0.69	0.69	2.77										
7. ORB6	0.56	0.33	0.23	0.81	0.69	0.88	3.48									
8. ORB8	0.55	0.73	0.49	1.15	0.74	0.91	2.03	2.97								
9. IRA1	-0.18	0.14	0.02	-0.12	-0.03	-0.06	-0.03	-0.09	0.31							
10. IRA2	-0.11	0.07	-0.06	-0.17	-0.03	-0.09	-0.11	-0.12	0.13	0.19						
11. IRA3	-0.16	0.06	-0.01	-0.10	-0.01	0.04	-0.06	-0.09	0.17	0.12	0.25					
12. IRA4	-0.18	0.14	0.03	-0.09	-0.04	-0.04	-0.16	-0.10	0.21	0.11	0.17	0.31				
13. IRA5	-0.08	0.04	0.05	-0.10	-0.07	0.04	-0.06	-0.05	0.19	0.09	0.14	0.18	0.29			
14. IRA6	-0.12	0.15	0.05	-0.15	-0.06	-0.03	0.01	-0.02	251.00	0.13	0.17	0.25	0.19	0.54		
15. Age	-0.08	-0.02	-0.07	-0.15	-0.17	-0.23	0.10	0.10	-0.07	-0.03	-0.05	-0.11	-0.08	-0.14	0.61	
16. Latina	0.05	0.01	0.10	0.08	0.13	-0.04	0.06	0.06	-0.03	-0.02	-0.04	-0.02	-0.02	-0.03	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	1.71	1.15	1.17	1.22	1.17	1.34	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	0.56	0.44	0.50	0.55	0.54	0.74	0.78	0.46

Table 9

Variance-Covariance Matrix with Means and Standard Deviations for Reactive Relational Aggression Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ISR4	2.54															
2. ISR5	0.19	3.35														
3. ISR6	0.27	0.47	2.52													
4. ISR7	0.87	0.60	0.38	3.48												
5. ISR9	0.32	0.87	0.47	0.61	2.50											
6. ORB5	0.33	0.66	0.45	0.68	0.69	2.76										
7. ORB6	0.56	0.32	0.23	0.81	0.69	0.88	3.48									
8. ORB8	0.55	0.73	0.48	1.15	0.74	0.90	2.03	2.97								
9. RRA1	-0.05	0.11	0.08	0.02	-0.01	0.06	0.04	-0.14	0.50							
10. RRA2	-0.08	-0.02	0.03	0.09	-0.08	0.20	0.01	0.19	0.21	0.81						
11. RRA3	-0.16	0.16	0.08	-0.04	-0.02	0.02	-0.03	-0.05	0.15	0.13	0.29					
12. RRA4	-0.18	0.01	-0.05	-0.10	-0.16	0.17	0.05	-0.08	0.20	0.24	0.18	0.75				
13. RRA5	0.14	-0.01	-0.15	0.18	-0.06	0.13	0.14	0.09	0.23	0.30	0.12	0.31	0.85			
14. RRA6	-0.19	0.06	-0.08	-0.13	-0.04	0.04	-0.07	-0.11	0.14	0.14	0.12	0.20	0.14	0.31		
15. Age	-0.08	-0.02	-0.07	-0.15	-0.17	-0.23	0.10	0.10	-0.14	-0.11	-0.05	-0.10	-0.13	-0.02	0.61	
16. Latina	0.05	0.01	0.10	0.08	0.13	-0.04	0.06	0.06	0.01	0.01	-0.01	-0.05	0.01	-0.03	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	1.45	1.75	1.26	1.61	1.94	1.21	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	0.71	0.90	0.54	0.86	0.92	0.56	0.78	0.46

Table 10

Variance-Covariance Matrix with Means and Standard Deviations for Pure Overt Aggression Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ISR4	2.54															
2. ISR5	0.19	3.35														
3. ISR6	0.26	0.53	2.55													
4. ISR7	0.87	0.60	0.40	3.48												
5. ISR9	0.32	0.88	0.51	0.61	2.50											
6. ORB5	0.34	0.66	0.44	0.69	0.69	2.77										
7. ORB6	0.56	0.33	0.27	0.81	0.69	0.88	3.48									
8. ORB8	0.55	0.73	0.52	1.15	0.74	0.91	2.03	2.97								
9. POA1	-0.16	0.06	-0.09	-0.01	-0.12	0.05	0.10	0.03	0.52							
10. POA2	-0.01	0.10	0.24	0.22	0.04	0.07	-0.05	0.10	0.23	0.53						
11. POA3	-0.19	0.06	-0.05	-0.11	-0.14	0.03	0.08	-0.01	0.33	0.31	0.60					
12. POA4	-0.06	-0.01	0.09	-0.08	0.02	-0.02	-0.06	-0.07	0.09	0.12	0.11	0.27				
13. POA5	-0.12	0.09	0.01	0.17	0.01	0.21	0.19	0.17	0.25	0.26	0.35	0.07	0.65			
14. POA6	-0.15	-0.02	-0.07	-0.22	-0.09	0.02	-0.01	-0.05	0.22	0.16	0.28	0.11	0.22	0.40		
15. Age	-0.08	-0.02	-0.06	-0.15	-0.17	-0.23	0.10	0.10	-0.02	-0.02	-0.03	-0.06	-0.07	-0.01	0.61	
16. Latina	0.05	0.01	0.11	0.08	0.13	-0.04	0.06	0.06	-0.03	-0.04	-0.07	-0.02	-0.06	-0.05	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	1.39	1.47	1.49	1.21	1.45	1.23	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	0.72	0.73	0.77	0.52	0.80	0.63	0.78	0.46

Table 11

Variance-Covariance Matrix with Means and Standard Deviations for Instrumental Overt Aggression Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ISR4	2.54															
2. ISR5	0.19	3.35														
3. ISR6	0.26	0.50	2.52													
4. ISR7	0.87	0.60	0.38	3.48												
5. ISR9	0.32	0.88	0.49	0.61	2.50											
6. ORB5	0.34	0.66	0.44	0.69	0.69	2.77										
7. ORB6	0.56	0.33	0.24	0.81	0.69	0.88	3.48									
8. ORB8	0.55	0.73	0.49	1.15	0.75	0.91	2.03	2.97								
9. IOA1	-0.12	0.06	0.06	-0.02	0.01	0.08	0.01	0.06	0.37							
10. IOA2	-0.13	-0.03	0.01	-0.07	-0.05	0.06	-0.09	-0.01	0.20	0.28						
11. IOA3	-0.10	-0.06	0.06	-0.09	-0.06	0.07	-0.06	-0.04	0.12	0.12	0.22					
12. IOA4	-0.01	-0.04	0.07	-0.06	-0.07	-0.03	0.02	-0.01	0.12	0.11	0.11	0.20				
13. IOA5	-0.11	0.01	-0.03	-0.16	-0.07	0.01	-0.14	-0.08	0.16	0.20	0.13	0.12	0.30			
14. IOA6	-0.12	0.10	-0.01	-0.14	-0.03	-0.01	-0.09	-0.06	0.11	0.10	0.09	0.08	0.11	0.26		
15. Age	-0.08	-0.02	-0.06	-0.15	-0.17	-0.23	0.10	0.10	-0.01	-0.02	-0.04	-0.04	-0.01	-0.06	0.61	
16. Latina	0.05	0.01	0.10	0.08	0.13	-0.04	0.06	0.06	-0.03	-0.04	-0.04	-0.02	-0.04	-0.01	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	1.25	1.18	1.14	1.16	1.19	1.18	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	0.61	0.51	0.47	0.44	0.54	0.51	0.78	0.46

Table 12

Variance-Covariance Matrix with Means and Standard Deviations for Reactive Overt Aggression Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ISR4	2.55															
2. ISR5	0.18	3.35														
3. ISR6	0.26	0.50	2.52													
4. ISR7	0.87	0.60	0.39	3.48												
5. ISR9	0.31	0.88	0.49	0.61	2.50											
6. ORB5	0.33	0.66	0.44	0.68	0.69	2.76										
7. ORB6	0.56	0.33	0.24	0.81	0.69	0.88	3.48									
8. ORB8	0.54	0.72	0.49	1.15	0.75	0.90	2.04	2.98								
9. ROA1	0.03	-0.16	-0.08	0.12	-0.19	0.08	-0.02	-0.10	1.09							
10. ROA2	-0.11	0.02	-0.06	-0.09	-0.25	0.11	0.11	-0.05	0.56	0.97						
11. ROA3	-0.02	-0.03	0.09	0.15	-0.12	0.11	0.03	0.13	0.38	0.36	0.82					
12. ROA4	-0.16	-0.03	0.08	0.04	-0.06	0.02	0.02	0.06	0.54	0.49	0.41	0.99				
13. ROA5	-0.07	-0.08	0.11	0.07	-0.06	0.11	-0.08	0.08	0.35	0.36	0.41	0.45	0.56			
14. ROA6	-0.09	-0.07	-0.05	-0.16	-0.13	0.18	0.09	-0.12	0.44	0.53	0.34	0.60	0.41	0.87		
15. Age	-0.09	-0.02	-0.06	-0.15	-0.17	-0.23	0.10	104.00	-0.01	-0.07	-0.01	-0.04	-0.04	-0.11	0.61	
16. Latina	0.05	0.01	0.10	0.08	0.13	-0.04	0.06	0.06	-0.07	-0.04	-0.01	-0.09	-0.03	-0.05	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	2.43	2.05	1.67	1.81	1.47	1.72	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	1.05	0.99	0.91	1.00	0.75	0.94	0.78	0.46

Table 13

Variance-Covariance Matrix with Means and Standard Deviations for Peer Victimization Structural Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ISR4	2.54															
2. ISR5	0.19	3.35														
3. ISR6	0.26	0.49	2.52													
4. ISR7	0.87	0.60	0.38	3.48												
5. ISR9	0.32	0.88	0.49	0.61	2.50											
6. ORB5	0.34	0.66	0.44	0.69	0.69	2.77										
7. ORB6	0.56	0.33	0.25	0.81	0.69	0.88	3.48									
8. ORB8	0.55	0.73	0.49	1.15	0.74	0.91	2.03	2.97								
9. OV1_R	0.36	0.24	0.07	0.52	0.39	0.30	0.51	0.63	1.88							
10. RV1_R	0.33	0.22	0.04	0.28	0.37	-0.03	0.28	0.32	1.00	1.53						
11. OV2_R	0.13	0.09	0.04	0.41	0.25	0.05	0.08	0.17	0.76	0.73	1.48					
12. RV2_R	0.19	0.13	0.09	0.39	0.32	0.03	0.37	0.37	0.99	0.96	0.71	1.64				
13. OV3_R	0.13	0.01	0.13	0.28	0.35	0.01	0.21	0.11	0.71	0.80	0.83	0.66	1.38			
14. OV4_R	0.16	-0.02	0.13	0.36	0.39	-0.01	0.25	0.23	0.90	0.86	0.74	0.87	0.97	1.69		
15. Age	-0.08	-0.02	-0.06	-0.15	-0.17	-0.23	0.10	0.10	-0.14	-0.14	-0.09	-0.09	-0.16	-0.09	0.61	
16. Latina	0.05	0.01	0.10	0.08	0.13	-0.04	0.06	0.06	-0.01	0.02	-0.01	0.01	0.01	0.05	-0.05	0.21
Mean	4.18	2.77	2.59	3.70	2.82	3.08	3.68	2.99	1.86	1.96	2.15	1.69	1.65	1.71	13.54	0.71
SD	1.59	1.83	1.59	1.87	1.58	1.66	1.87	1.73	1.23	1.28	1.37	1.21	1.17	1.30	0.78	0.46