



University of North Dakota
UND Scholarly Commons

Theses and Dissertations

Theses, Dissertations, and Senior Projects

January 2014

Relational Aggression Among Caucasian And Northern Plains American Indian School Children

Stephanie Parisien

Follow this and additional works at: <https://commons.und.edu/theses>

Recommended Citation

Parisien, Stephanie, "Relational Aggression Among Caucasian And Northern Plains American Indian School Children" (2014). *Theses and Dissertations*. 1692.

<https://commons.und.edu/theses/1692>

This Dissertation is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact zeinebyousif@library.und.edu.

RELATIONAL AGGRESSION AMONG CAUCASIAN AND NORTHERN PLAINS
AMERICAN INDIAN SCHOOL CHILDREN

by

Stephanie Parisien
Bachelor of Science, University of North Dakota, 2007
Master of Arts, University of North Dakota, 2010

A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

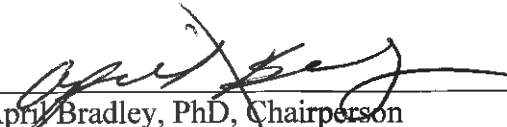
in partial fulfillment of the requirements

for the degree of

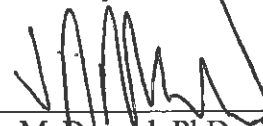
Doctor of Philosophy

Grand Forks, North Dakota
December
2014

This dissertation, submitted by Stephanie Parisien in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.



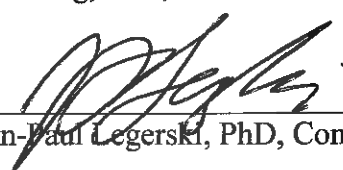
April Bradley, PhD, Chairperson



Doug McDonald, PhD, Committee Member



Alan King, PhD, Committee Member



John-Paul Legerski, PhD, Committee Member



Roni Mayzer, PhD, Committee Member

This dissertation is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.



Wayne Swisher
Dean of the School of Graduate Studies



Date

PERMISSION

Title Relational Aggression among Caucasian and Northern Plains American
 Indian School Children

Department Psychology

Degree Doctor of Philosophy

In presenting this dissertation in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my dissertation work or, in her absence, by the chairperson of the department or the dean of the Graduate School. It is understood that any copying or publication or other use of this dissertation or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of North Dakota in any scholarly use which may be made of any material in my dissertation.

Stephanie Parisien
September 26, 2014

TABLE OF CONTENTS

LIST OF TABLES.....	vi
ABSTRACT.....	vii
CHAPTER	
I. INTRODUCTION.....	1
Background Information.....	1
Literature Review.....	6
Gender and Relational Aggression.....	6
Developmental Trends and Relational Aggression	14
The Role of Culture.....	24
The Impact of Relationally Aggressive Behavior on Psychological Functioning.....	30
Rationale for Current Study.....	35
Hypotheses.....	36
II. METHOD.....	38
Participants.....	38
Measures.....	39
Procedure.....	43
III. RESULTS.....	45
Descriptive Characteristics.....	45

	Group Comparisons among Demographic Variables and Measures of the Study.....	47
	Associations among Demographic Variables and Measures of the Study.....	55
	Group Comparisons among Demographic Variables.....	55
	Relational Aggression and Acculturation.....	56
	Comparisons and Interactions among Demographic Variables on Relational Aggression.....	57
IV.	DISCUSSION.....	61
	Clinical Implications.....	67
	Limitations of the Current Study and Future Research Directions.....	69
	Conclusion.....	72
	APPENDIX.....	75
	REFERENCES.....	76

LIST OF TABLES

Table		Page
1.	Range of Scores and Overall Mean Values of the Measures used in the Study.....	43
2.	Means and Standard Deviations among Demographic Variables and Measures of the Study.....	46
3.	Means and Standard Deviations among Demographic Variables and Additional Measures of the Study.....	47
4.	Independent-Samples T-tests Comparing Males and Females on the Measures of the Study.....	49
5.	Independent-Samples T-tests Comparing Caucasians and American Indians on the Measures of the Study.....	50
6.	One-way Analysis of Variance Comparing Grade Level on the Measures of the Study.....	51
7.	One-way Analysis of Variance Comparing Age Groups on the Measures of the Study.....	52
8.	MANCOVA: Exploring Differences between Groups while Controlling for Gender and Ethnicity.....	53
9.	Correlations between Demographic Variables and Measures of the Study.....	55
10.	Independent-Samples T-tests Comparing Caucasians and American Indians on Demographic Variables.....	56
11.	Independent-Samples T-tests Comparing Acculturation Levels of American Indians on Relational Aggression.....	57
12.	MANOVA: Comparisons and Interactions among Demographics on the Combined Dependent Variables.....	59
13.	Separate Analyses of the Dependent Variables by Gender.....	60

This dissertation is dedicated to my mother and grandparents
for their love, endless support, and encouragement.

ABSTRACT

Relational aggression is a form of aggression that has received increasing attention within the psychological literature. Among the American Indian population, however, research on relational aggression is currently non-existent. To date, research is continuing to grow with regard to the base rates of relational aggression. The current study has examined both peer-nominated and self-report relational aggression among Caucasian and Northern Plains American Indian school children in order to explore cultural, gender, grade level, and age differences. Other forms of aggression and social status were also explored in order to understand how these constructs may play a role in peer relations. Among Northern Plains American Indian children, differences in acculturation were examined with regard to relational aggression. Comparisons and interactions were further explored among culture, gender, and grade level on relational aggression. Lastly, group comparisons and associations were explored on the various demographics and measures of the study. The overall sample consisted of 488 middle school students recruited from three rural schools within the Northern Plains region. In addition to a demographic questionnaire, the participants completed multiple inventories pertaining to bullying behavior, social acceptance/popularity, social group membership, and cultural identification. The results indicated that middle school girls reported significantly higher relational aggression and were nominated by their peers for displaying this form of aggression at a significantly higher rate than boys. Caucasian

students did not report significantly higher relational aggression but were nominated by their peers as being significantly more relationally aggressive than American Indian students. Acculturation differences among Northern Plains American Indian children were found on peer-nominated relational aggression only. Differences in grade level and age on both self-report and peer-nominated relational aggression were insignificant but were present in the demographic trends/base rates. Differences were also found in the demographic trends/base rates of peer-nominated overt aggression and measures of social status; however, none of these differences were significant. The findings revealed no significant interactions among relational aggression and the demographic variables of the study. Clinical implications, limitations of the current study, and future research directions are discussed.

CHAPTER I

INTRODUCTION

Background Information

Child aggression is a very serious problem in today's society that consists of many different forms. Physical or overt aggression is strongly emphasized in the psychological literature and has been studied extensively for several years (Leff, Waasdorp, & Crick, 2010). This form of aggression refers to the "intent to harm another through physical force or dominance" (Leff et al., 2010, p. 508). One particular form of aggression that has not been given as much attention is relational aggression. This aggressive behavior refers to "nonphysical aggression in which one manipulates or harms another's social standing or reputation" (Leff et al., 2010, p.509). This concept of aggression has only been developed in the past two decades and was introduced by Crick and Grotpeter (1995). Behaviors of this form can be either direct (e.g., ceasing friendship with someone if he or she does not do what the other person says) or indirect (e.g., spreading rumors behind someone's back in order to turn others against him or her) (Leff et al., 2010).

Similar terms relative to relational aggression have also been noted in the literature. For example, the terms indirect aggression and social aggression are two other constructs that have significant overlap but also include important distinctions (Young, Boye, & Nelson, 2006). Indirect aggression can be distinguished from relational

aggression in that the targeted person is not directly confronted while relational aggression includes both direct and indirect behaviors (as stated above). Furthermore, relational aggression consists of a wider range of socially manipulative behaviors than is implied by indirect aggression. Social aggression, on the other hand, is nonconfrontational or based on indirect means and uses the social community in order to attack. However, both direct and indirect forms of behavior, as well as a greater variety of nonverbal behaviors, have been included in defining social aggression (Young et al., 2006).

Relationally aggressive behaviors can emerge differently based on a child's development. According to Archer and Coyne (2005), relationally aggressive children within early childhood will typically engage in various behaviors if, for example, their friend does not do what they want, such as threatening to end the friendship, not inviting him or her to a party, and/or threatening to exclude him or her. They may also refuse to listen to someone if they are mad at this person (e.g., covering ears). During middle childhood/pre-adolescence, behaviors of this age group tend to include gossiping, spreading rumors, backbiting, breaking confidences, criticizing clothes and personality behind the person's back, ignoring someone, deliberately leaving others out of the group, social ostracism/exclusion, turning others against someone, becoming friends with another as revenge, imitating someone behind his or her back, embarrassing someone in public, writing anonymous notes, using practical jokes, making abusive phone calls, and huddling (Archer & Coyne, 2005).

The development of aggression in general has been stated by Letendre (2007) to stem from parental practices, such as a failure to model and reward non-aggressive

interactions, the use of harsh and coercive punishment on a consistent basis to sanction negative behaviors, and the lack of supervision. This type of parenting only promotes the learning of aggression rather than pro-social skills as result from being raised in a non-nurturing environment (Letendre, 2007). For specifically relational aggression, parental conflict, coercion, and psychological control have all been found to be possible links to this development (Yoon, Barton, and Taiariol, 2004). As an example, it has been stated that “parents may invalidate a child’s feelings, threaten to withdrawal love or affection, or use sarcasm and power-assertive discipline” (p. 307). Sibling relationships may also be responsible for the occurrence of relational aggression. Evidence reviewed by Yoon et al. (2004) has suggested that relational aggression occurs more so among sibling dyads than physical aggression. Furthermore, relational aggression has been found to be linked to conflicts, depressive symptoms, and low self-worth. Relationally aggressive sibling interactions are also likely to serve as a model for learning social behaviors that may then play a role in peer relationships. Peers may play a role as well, by endorsing and collaborating relational aggression (Yoon et al., 2004).

An additional perspective on the development of aggression originates from evolutionary theory. According to Cashdan and Downes (2012), aggression can be understood as an evolved adaptation and that variation in aggression has evolutionary roots. Specifically, evolution shapes the pattern of response to environmental circumstances and those circumstances, in turn, shape the costs and benefits of behaving aggressively. For instance, extremes of wealth and power, confidence of success, and complex political organization are circumstances that can shape and predict aggressive responses. Another explanation, according to Buss and Shackelford (1997), is that “all

human behavior is a product of mechanisms internal to the person, in conjunction with inputs that trigger the activation of those mechanisms” (p. 607). One of those mechanisms includes the aggression instinct. With specifically childhood aggression, it is a means for gaining access to resources, such as toys and territory. A child may be able to secure these resources from others even through the use of threats alone. For instance, a child may give up his lunch money in order to prevent a beating (Buss & Shackelford, 1997).

Relational aggression prevalence rates are continuing to grow within the literature. A secondary analysis of survey data was prepared for the Institute of Education Sciences (IES) by Regional Educational Laboratory Northwest. A voluntary sample of 11,561 students from rural and urban schools completed several surveys in order to gather information on student-reported overt and relational aggression and victimization in grades 3-8. According to the authors of this survey study, Nishioka, Coe, Burke, Hanita, and Sprague (2011), 41-48% of girls and 31-42% of boys reported being a victim of relational aggression during the last 30 days, and 4-6% of girls and boys reported being victimized one or more times a week. This also depended on the behavior to which they were exposed. The most common behavior of relational aggression that was reported was “being lied about so other would not like them” (p. ii). In terms of perpetration of relational aggression, 21-28% of girls and 20-24% of boys reported being perpetrators during the last 30 days, and .8-1% of girls and 1-2% of boys reported being perpetrators one or more times a week. This also depended on the behavior that was perpetrated. The most common behavior was “ignoring a student on purpose” (p.iii).

Gender differences based on type of aggression were found and indicated that girls reported being the victim of mean teasing or of relational aggression at higher frequencies than of physical violence or threats of physical violence. In reverse, boys reported experiencing physical violence more than any relational form of aggression. With perpetration of relational aggression, boys reported engaging in this aggression more so than girls. Grade level findings have found more relational aggression to occur (in terms of perpetration) among students in grades 6-8 than in grades 3-5. Other research cited by the authors indicated that school bullying was highest for students in 6th grade and decreased for students in higher grade levels (Nishioka et al., 2011).

Aside from relational aggression, the rates of general bullying behavior are also present in the literature. Basic facts and prevalence rates about bully/victim problems in school were discussed by Olweus (1997). According to Olweus' large-scale survey results, it was found that "some 9% of the students in grades 1 through 9 are fairly regular victims of bullying and that 6-7% engage in bullying others with some regularity" (p.495). Bullying was indicated to be a greater problem among boys; however, it is still present among girls as well. Girls also typically use more subtle and indirect forms of bullying (e.g., slandering, spreading rumors, intentional exclusion from the group, and manipulation of friendship relations) than physical forms. Olweus also found victims of bullying to be characterized as younger and weaker while it is carried out by older students and directed towards younger ones.

A perspective on bullying was described by Olweus as "a component of a more generally antisocial and rule-breaking ("conduct-disordered") behavior pattern" (p. 501). There was strong support for this view in Olweus' follow-up studies, which indicated that

“approximately 60% of boys who were characterized as bullies in grades 6-9 had been convicted of at least one officially registered crime by the age of 24” (p. 501).

Furthermore, there was a fourfold increase in the level of serious, recidivist criminality (Olweus, 1997).

Additional bullying behavior prevalence rates have been reviewed by Vaughn et al. (2010). Previous longitudinal studies have shown that bullying affects nearly 30% of youth in the United States. According to a National Epidemiologic Survey study on psychiatric correlates of bullying in the U.S., the overall prevalence rate of bullying between 2001 and 2002 was 6%. A lifetime history of bullying others was reported in 1 in every 17 adults in the U.S., which is indicative of a high base rate. Additional findings from this survey indicated an association between bullying and a broad range of antisocial behaviors, which therefore sets markers for potential disorders, such as conduct disorder and antisocial personality disorder. Comorbidity between bullying and alcohol use disorder, cannabis use disorder, and nicotine dependence were found to a significant degree in addition to other disorders, including bipolar disorder and paranoid and histrionic personality disorders (Vaughn et al., 2010). Altogether, the prevalence rates on relational aggression and bullying behavior overall add important insights to the growing literature (e.g., demographic differences, victimization/perpetration, and links to antisocial behaviors and substance use).

Literature Review

Gender and Relational Aggression

Research within the area of aggression has largely been conducted with regard to gender differences. While several studies have examined gender within aggression in

general, others have focused on gender with particular forms of aggression. With regard to relational aggression, it has been proposed that this form of aggression is more common among girls than boys (Kistner et al., 2010). The basis of this finding relates to biological, interpersonal, and socialization factors. Biologically, females tend to rely more on the use of relational aggression due to lower physical strength. Interpersonally, in comparison to boys', girls' social networks typically consist of smaller and more intimate social groups, which makes it easier to use relational aggression. In terms of socialization reasons, there is less adult tolerance with regard to physical aggression for girls relative to boys (Kistner et al., 2010).

The results of previous studies have been inconsistent, with several studies finding that girls exhibit more relational aggression than boys, others finding the reverse (boys exhibiting more relational aggression than girls), and some finding no differences (as described below).

Focusing on relational aggression, a study was conducted by Crick and Grotpeter (1995) in which this form of aggression along with gender and social-psychological adjustment was explored. The authors were interested in developing a reliable measure of relational aggression, assessing gender differences in relational aggression, assessing the degree to which this type of aggression is distinct from overt aggression, and assessing whether relational aggression is related to social-psychological maladjustment.

Crick and Grotpeter's sample consisted of 491 male and female third through sixth graders. Measures of the study included a peer nomination instrument, Asher and Wheeler loneliness scale, Franke and Hymel social anxiety scale, Children's Depression Inventory, and an adaptation of the Children's Peer Relations Scale. Results of the study

indicated that there is evidence for the validity of a relational form of aggression. Relational aggression was found to be relatively distinct from overt aggression and also found to significantly relate to gender and social-psychological adjustment. In terms of gender, relational aggression was more characteristic of females than males while overt aggression was more characteristic of males than females. Peer and self-report assessments indicated that relationally aggressive children were significantly more disliked than other children and fell into the rejected and controversial groups. Relational aggression was also significantly related to social maladjustment independent of overt aggression and also varies as a function of gender; that it is stronger for females than for males. In sum, both girls and boys exhibit aggression but tend to display distinct forms of aggression with relational aggression being more common among girls and overt aggression more common among boys. Additionally, relational aggression is significantly associated with social-psychological adjustment problems (Crick & Grotpeter, 1995).

The role of relational aggression in identifying aggressive boys and girls was examined in a study by Henington, Hughes, Cavell, and Thompson (1998). The authors were interested in determining gender differences in the levels and correlates of two forms of aggression, relational and overt. The association between sociometric status and the two forms of aggression was also explored. Gender differences were examined in terms of the association between the type of peer-rated aggression and the status as aggressive or nonaggressive, based on teacher nomination. Lastly, the implications of assessing relational aggression when identifying children for an intervention were determined.

This study included fifty-six teachers of second and third grade classrooms who were asked to nominate aggressive children. Data were collected on a total of 904 boys and girls. Measures of the study included peer nominations and the Child Behavior Checklist. Findings of the study indicated that boys obtained higher peer ratings of both relational and overt aggression. While investigating gender differences in the pattern of association between both types of aggression and peer perceptions of liking, disliking, and social behaviors; a common pattern of association was found for boys and girls. Specifically, both relational and overt aggression were found to explain a similar amount of variance in peer-rated liking, disliking, and social behaviors. However, an exception to this was that there was a stronger association for girls between relational aggression and peer nominations for being withdrawn and depressed.

The authors also found that relational aggression does not uniquely contribute to understanding children's social behaviors beyond that predicted by overt aggression as there was only a small amount of variance that was accounted for by relational aggression. In terms of sociometric status and type of aggression, both relational and overt aggression differentiate rejected children from all other sociometric status groups including popular, average, neglected, and controversial children. Gender differences in aggressive subtypes have indicated that high levels of overt aggression were more likely to result in peer rejection for girls than boys. Lastly, relational aggression was considered by teachers when nominating children for the intervention. Altogether, both relational and overt aggression in this study are more dominant in boys and both aggression types function in a similar manner across gender, based on peer perceptions of liking and social behaviors as well as teacher ratings of aggression (Henington et al., 1998).

Sociometric status was also examined in a study conducted by Lee (2009). Specifically, the author was interested in determining whether male and female bullies had different sociometric status as a function of the types of aggression used. The relationship of aggression and bullying to social preference was also investigated while taking into account gender differences and types of aggression.

The overall sample consisted of 338 fifth grade children between the ages of 10 and 11. Peer nominations were obtained in this study with regard to aggression, bullying, peer acceptance, and peer rejection. Four groups were divided into status classification, including preferred, rejected, neglected, and controversial children. Results of the study have suggested that there was a stronger connection among aggression and peer rejection for boys than girls. Additionally, boys' aggressive behaviors were found to associate with low peer acceptance, while for girls, peer acceptance was not found to associate with their aggressive behavior. It was stated by the author that a possible reason for this result might be the differences in aggression. That is, boys used more physical aggression while girls used more relational aggression. When controlling for other types of aggression, verbal aggression was found to be positively related to peer rejection for boys (high verbal aggression associated with high peer rejection) but negatively related for girls (high verbal aggression associated with low peer rejection). Furthermore, relational aggression contributed to peer rejection only for girls. In terms of peer nominations of bullies, children nominated physically aggressive boys and verbally and relationally aggressive girls as bullies. In sum, these results confirmed that boys and girls not only differ in their preferred method of bullying but also in their social preference (Lee, 2009).

Gender differences were also explored in a study conducted by Tapper and Boulton (2004) in which various types of aggression were examined among school children. This study focused upon children's beliefs about aggression in addition to the relationships between these beliefs and the levels of physical, verbal, and indirect aggression. The authors were also interested in incorporating an observational measure to examine gender differences among different types of aggression along with self-report and peer-report measures.

The participants consisted of 74 children between the ages of 7 and 11. Data were collected via self-report and peer-report measures, a modified version of the original EXPAGG questionnaire by Campbell et al. (1992), and an observation measure. The results showed that boys engaged in significantly more physical aggression than girls, according to observational data, while there were no gender differences in physical aggression with peer and self-report data. There were no findings of gender differences for direct verbal aggression or indirect aggression. Furthermore, no significant interactions between sex and age were found for indirect aggression. Lastly, the authors found that children's beliefs about aggression were significant predictors of levels of aggression even after the effects of sex and age had been partialled out, such that a more instrumental belief predicted a higher level of aggression whereas a more expressive belief predicted a lower level of aggression. In conclusion, this study has found that more physical aggression is characteristic for males than females while no significant differences were present for indirect and verbal aggression. Furthermore, there is a link between children's beliefs and levels of aggression (Tapper & Boulton, 2004).

Relevant to children's beliefs about aggression, an additional study examined adolescents' perceptions of indirect forms of relational aggression while focusing on the gender of the perpetrator. Coyne, Archer, Eslea, and Liechty (2008) conducted this study on 160 adolescents, consisting of males and females between the ages of 11 and 14. The participants were shown one of two videos, a "girl" video and a "boy" video. Specifically, the girl condition consisted of a female aggressor, victim, and popular character. The boy condition entailed a male aggressor, victim, and popular character. The videos focused upon the friendship of two students at a local high school with the portrayal of aggression involving spreading a nasty rumor, stealing a biology essay behind the victim's back, putting up embarrassing pictures around the hallways, and breaking up the victim's newly formed relationship with their popular boyfriend/girlfriend.

In assessing the participants' perceptions of the video that they viewed, a 12-item television questionnaire was administered. The questions were geared towards the justification of the aggressive behavior, empathy for the victim, normality of the portrayed aggression, and filler questions. Based on the results, those who viewed boy-to-boy indirect forms of relational aggression rated the aggressor as more justified than those who viewed girl-to-girl aggression. The authors pointed out that "the stereotype of the 'aggressive boy' persists even though relational aggression is viewed as more acceptable in girl social groups." Those who also viewed the boy-to-boy indirect relational aggression did not have more empathy for the victim or feel that the aggression was more normal than those who viewed the girl-to-girl aggression. The results also indicated that no gender differences were found in how the boys and girls in the study

perceived the aggression. Overall, as viewed by the participants in the study, relational aggression by boys is still regarded as more justified than relational aggression by girls (Coyne et al., 2008).

While several studies have focused upon individual characteristics (e.g., gender, peer status) in association with relational aggression, associations with classroom or environmental characteristics (e.g., classroom norms) have largely been understudied (Kuppens, Grietens, Onghena, Michiels, & Subramanian, 2008). In one particular study, Kuppens et al. (2008) examined individual and classroom correlates among 2731 children in grades 3-5 over the course of two successive measurement years.

Data were collected via Crick and Grotpeter's peer nomination instrument and other nominations items pertaining to peer rejection and perceived popularity. Classroom relational aggression norms were calculated based on the mean of relationally aggressive behavior of all classroom children determined through the peer nomination instrument. Gender distribution was represented by the percentage of girls in each classroom. The results indicated that relational aggression correlated significantly higher with girls than with boys. However, the strength of the association between relational aggression and gender was weak, suggesting very little support for relational aggression being the marked female form of aggression. The authors discuss further that the classroom context may likely explain the inconsistencies across the literature regarding gender differences.

Additional findings suggested that relational aggression was positively associated with perceived popularity and peer rejection. Specifically, as perceived popularity increased, the probability of receiving nominations for relational aggression also increased. Similarly, as peer rejection increased, nominations for relational aggression

also increased. The authors further discussed the possible inferences of this finding indicating that relationally aggressive children are more likely to be rejected by their peers or that rejected children are more likely to use relationally aggressive acts. The direction of this association, as stated by the authors, needs further clarification through longitudinal research. Regarding the association between perceived popularity and relational aggression, previous literature suggested that the social power accompanied with perceived popularity may be necessary for children to manipulate peer relationships. Since the authors of this study found a weak association between perceived popularity and relational aggression, the findings are not strong enough to support this conclusion.

Relational aggression was also found to be fairly stable over time. Higher classroom aggression norms were found to associate with increased relational aggression. This study demonstrated that variation in relational aggression cannot be accounted for by individual variables alone. In sum, several individual and classroom correlates of relational aggression were found to be present in this study and this aggression was more dominant in girls than boys (Kuppens et al., 2008).

Developmental Trends and Relational Aggression

As evidenced in the above studies, relational aggression appears to be a current issue that, lately, has been receiving increased attention from researchers. Although relational aggression is used by both genders to some degree, boys and girls significantly differ from each other in the way they express aggression as they develop (Hadley, 2004). Therefore, in addition to gender, an individual's development is also key to understanding and exploring how and why relational aggression occurs.

In order to understand developmental trends in childhood aggression, it is important to distinguish between normative and non-normative development of children's behaviors. Bongers, Koot, van der Ende, and Verhulst (2004) indicated that externalizing behaviors change across development with regard to expression and frequency. Theoretically and clinically, it is important to consider when children and adolescents engage in certain externalizing behaviors in addition to the type and frequency of the behaviors. These factors are necessary in order to understand the normal development of externalizing behaviors as this can ultimately provide a baseline. This can be beneficial in defining abnormal behaviors across age (Bongers et al., 2004). Younger children, in particular, often have temper tantrums, noncompliance, and aggression which have been noted to be normative behaviors in toddlers (Keenan, Shaw, Delliquadri, Giovannelli, and Walsh, 1998). This developmental period has often been referred to as "the terrible twos" (Keenan et al., 1998). This is why it is highly important to determine what is normal versus abnormal behavior among children and adolescents. The assessment or examination of a child's behavior can be easily misconstrued without understanding or taking into consideration the developmental factors or patterns involved.

Focusing more specifically on the developmental differences of aggressive behavior in association with gender, academic research was reviewed by Hadley (2004). Within this review, boys are stated to be more direct and physically aggressive at all ages. In terms of verbal aggression, although both boys and girls engage in this type of aggression, girls are more developed in their use of this aggression, which may reflect gender differences in language abilities. In particular with girls, by early puberty (9 to 11

years old), their aggressive behavior is evident and is significantly more characteristic of social, relational, and indirect aggression, which is therefore less obvious than boys'.

These types of aggressive behaviors among girls are more closely associated with close friendships, tight peer groups, and more advanced social intelligence. On the other hand, boys tend to engage in physical aggression, which gradually decreases during late adolescence as verbal aggression in addition to some indirect methods are increased. In sum, these changes are attributed to boys "catching up" with girls within the area of social intelligence (Hadley, 2004).

Björkqvist, Lagerspetz, and Kaukiainen (1992) also makes note of these developmental differences, indicating that indirect aggression is dependent on maturation. In particular, young children are likely to use physically aggressive behavior, such as hitting, pushing, kicking, and shoving, because they lack verbal skills. However, they are more likely to use direct verbal aggression, such as abusing and accusing as well as shouting and calling names, as their verbal abilities develop. Once social skills have been developed, a third stage of aggressive strategies, known as indirect aggression, can evolve. This development, therefore, makes it possible for an individual to use the social network as a means of bringing harm to the target of his or her aggression (Björkqvist et al., 1992).

Other research, according to a review by Leff et al. (2010), indicated that simple forms of relational aggression (e.g., putting their hands over their ears as a way to ignore a peer) can be detected among children as early as three years old. The influence of actions such as these may stem from preschooler's early experiences at home with older siblings and parents. Among elementary and early middle school children, the authors

reviewed that their actions become more complex (e.g., exclusionary behaviors) and can be direct or indirect. During adolescence, their actions still continue to become more complex and subtle (e.g., using electronic media as a medium for relationally aggressive behaviors) (Leff et al., 2010). Especially among middle childhood and adolescence, according to Yoon et al. (2004), relational aggression is likely to be more salient due to developmental milestones that occur during this period; specifically with middle school children having significant growth within cognitive and social areas. As stated by the authors, advances in social cognition appear to play a role in relational aggression. For instance, Hill and Palmquist (1978) stated that adolescents in general enhance their social understanding (as cited in Yoon et al., 2004, p. 305). Kreitler and Kreitler (1987) and Moshman (1993) indicated that adolescents become more sophisticated at goal setting and complex social problem solving (as cited in Yoon et al., 2004, p. 305-306). Selman (1980) noted that they become increasingly skilled at understanding the complicated process of subtle, nonverbal behaviors and their impact on interpersonal relationships (as cited in Yoon et al., 2004, p. 306). Those adolescents who are more cognitively sophisticated are likely to be best suited to engage in relational aggression due to their ability to perceive manipulative and harmful interaction methods. As noted by Crick et al., (1999), these cognitive changes may explain why more sophisticated forms of relational aggression are present during middle school (as cited in Yoon et al., 2004, p. 306). Clearly, both gender and developmental differences are important and necessary for identifying and understanding the actions of relational aggression.

The continuity of aggressive behaviors throughout development is also discussed by Mesman, Bongers, and Koot (2001). These authors indicated that behavioral and

emotional problems during early preschool age (ages 2-3 years) may potentially lead a child on a pathway of maladaptive behaviors, or in particular, internalizing and externalizing problems. Social demands during school entry (ages 4-5 years) allow preschoolers to engage in key developmental tasks, such as making friends and learning social skills. Whether or not children are able to successfully adapt to these social demands is highly important to their further development, and especially within the development of maladaptive behaviors in later childhood (Mesman et al., 2001).

Further research (Keenan et al., 1998) also suggests evidence for the continuity of early problem behaviors. More specifically, the authors have found that difficult temperament at 18 months old was significantly related to both girls' and boys' later internalizing problems. Furthermore, noncompliance in girls and aggression in boys at 18 and 24 months old were found to relate to later externalizing problems at 3 and 5 years old (Keenan et al., 1998).

Although previous literature has demonstrated evidence for the continuity of problem behaviors across development, it is also possible for some children to show variation. In particular, Bongers et al. (2004) have indicated that some children with high levels of externalizing behaviors may outgrow these problems during adolescence (Bongers et al., 2004). Altogether, various factors within the development of aggression as a whole and relational aggression in particular should not be overlooked. Factors such as normal versus abnormal behavior patterns, gender differences across development, and the continuity of aggression throughout development need to be considered in order to fully understand the problem behavior.

Several studies have included both gender and age as variables of interest. In one particular study, Rys and Bear (1997) examined both gender and developmental issues in relational aggression and peer relations. The authors investigated the relationship between three behaviors: physical aggression, relational aggression, and prosocial behaviors and three social outcomes: peer rejection, acceptance, and reciprocal friendships.

The total sample consisted of 131 third graders and 135 sixth graders. Measures of the study included positive and negative peer nominations to assess popularity, Crick and Grotpeter's peer nomination inventory to assess aggression and prosocial behavior, and the Children's Social Behavior Scale-Teacher Form. According to the findings, this study has shown that relational aggression is gender-related, thereby resulting in a replication of Crick and Grotpeter. Gender differences only emerged when children were classified as aggressive using Crick and Grotpeter's method of classification. Specifically, boys were found to score high on both overt and relational aggression whereas girls were found to score high on relational aggression while scoring low on overt aggression. Peer rejection was most clearly linked to peer perceptions of overt aggression in boys while this link was more strongly correlated with peer perceptions of relational aggression among girls. Across gender, a relation was also found among peer perceptions of prosocial behavior and the three social outcomes (rejection, acceptance, and friendship).

Developmentally, at sixth grade, physical and relational aggression were less strongly related to peer rejection in girls than boys of the same age. Altogether, relational

aggression alone was more characteristic of girls than boys. Links to peer rejection were also found which also varied across gender and type of aggression. (Rys & Bear, 1997).

Developmental trends were also examined in regard to direct and indirect aggression in a study conducted by Björkqvist et al. (1992). These authors considered investigating gender differences as well. A series of studies were conducted on different age cohorts of school children. The first study examined a total of 85 eight-year old children in the second grade. The aggressive behavior of these children was measured by peer nominations and self-ratings of one's own behavior. The social structure of the class was also measured in which children were asked to rate the social relationship of their peers in the class. These ratings were made in the form of individual interviews.

In the second study, 127 fifteen-year old children in the ninth grade were examined. The method used for measuring aggressive behavior was identical to the first study. Questionnaires rather than interviews were used in this particular study.

Lastly, results of these two age groups were compared with the results from a previous study conducted by Lagerspetz et al. (1988) in which eleven-year old children were examined. Measures of this study were identical to the first study. The results found evidence that indirect methods are dependent on maturation as well as on the existence of a social network. Gender and developmental findings indicated that girls of the two older cohorts (11 and 15) make greater use of indirect means of aggression while boys tend to engage in direct means. The authors have also discovered that aggressive behavior was at its highest "peak" at age 11 whereas indirect aggressive strategies were underdeveloped at age 8. This developmental trend was more clearly present among girls than boys.

Overall, indirect aggressive methods are dependent on maturation. This aggression occurs more so among girls and is at its highest “peak” at age 11 (Björkqvist et al., 1992).

Developmental trends are particularly important in that they differ depending on the form of aggression used. It has been suggested by Kistner et al. (2010) that overt and relational aggression differ with regard to developmental patterns. That is, overt aggression typically occurs early in life where it peaks between age 2 and 4 at which point it then declines with age. On the other hand, relational aggression emerges toward the end of the preschool years and becomes normative during middle childhood. The authors have, therefore, conducted a study on both forms of aggression (overt and relational aggression) in which late elementary school children were examined while also taking into account gender differences. In particular, a cross-sectional, short-term longitudinal design was used to examine gender differences in developmental patterns of both forms of aggression among school children within grades three through five.

The sample consisted of 176 third, 179 fourth, and 145 fifth graders. Peer assessment of aggression consisted of using peer nominations to measure overt and relational aggression. Data were collected at two time periods; time 1 in which data were collected at three months into the academic year, and time 2 in which data were collected at six months after the initial evaluation. The results indicated that relational aggression increased in girls in fourth and fifth grade but decreased in boys of the same grade levels. Among the third grade level, relational aggression did not increase in girls nor did it decrease in boys. Gender differences in relational aggression were found to vary based on children’s grade level. At third grade, boys were more relationally aggressive than girls. At fourth grade, there were no gender differences. At fifth grade, girls were more

relationally aggressive than boys. Based on this finding, the authors explained that the magnitude of gender differences in this type of aggression may wax and wane across development. Specifically, gender differences may initially emerge in the preschool years and then disappear during the early school years, only to reemerge once again during the adolescent years. It was also pointed out that friendship intimacy (a potential contributor) and the onset of puberty (an association) serves as possible explanations for the rise of relational aggression among girls. Similar results were found for overt aggression in that there was a significant rise among fifth grade girls but not among boys of the same grade level or among younger boys and girls. Despite this finding, boys were found to be more overtly aggressive than girls across all grade levels. Overall, these findings suggest that there is a rise in both overt and relational aggression for girls but not boys in the late elementary school years (Kistner et al., 2010).

Developmental differences were also examined in two studies conducted by Rose, Swenson, and Waller (2004). The authors investigated overt and relational aggression and perceived popularity while exploring their relations, the temporal ordering of the relations, and gender and developmental differences. In study one, participants consisted of 607 third, fifth, seventh, and ninth grade male and female students.

In the second study, two waves of data were collected approximately 6 months apart. Participants were also recruited from the same grade levels as in the first study. The first wave sample consisted of 1,041 students while the second wave sample consisted of 997 students. Peer nominations were used in both studies to assess perceived popularity, overt aggression, and relational aggression. According to the results, both forms of aggression were significantly and positively related to perceived popularity

among older seventh and ninth grade students. However, there was no significance in the positive bivariate relations between overt aggression and perceived popularity when both forms of aggression were simultaneous predictors. On the other hand, all positive bivariate relations between relational aggression and perceived popularity remained significant. These findings revealed that relational aggression shares an important relation with perceived popularity. The temporal ordering of these relations over 6 months indicated bidirectional positive relations between relational aggression and perceived popularity for older girls. This was not the case for older boys, where relational aggression did not predict increased perceived popularity but rather perceived popularity predicted increased relational aggression. Possible inferences of this finding were explored by the authors. For instance, it was stated that perhaps perceived popularity leads to acts, such as excluding and ignoring, because popular youth simply do not have the time to interact with everyone. Behavior such as this could be unintentional. On the reverse, behavior could be intentional in that they may use their social power to engage in relationally aggressive acts with those who anger them. Overt aggression did not lead to increased perceived popularity for either gender. Developmentally, aggression and perceived popularity was found to be positively related for the older participants only. In sum, relational aggression was found to relate to increased perceived popularity over time for older girls (Rose et al., 2004).

Clearly, inconsistencies are present across the literature regarding sociometric status and relational aggression with relational aggression relating to popularity (Rose et al., 2004), peer rejection (Henington et al., 1998; Lee, 2009; & Rys & Bear, 1997), or both (Kuppens et al., 2008). In spite of these differences, it has been pointed out that

perceived popularity may give children who are relationally aggressive the social power to manipulate peer relationships but these children may, in turn, become rejected by their victimized peers due to their relationally aggressive behavior (Kuppens et al., 2008).

The Role of Culture

Although several research studies have been conducted on relational aggression, there is a great need of attention for research within this area among the American Indian population. To date, there is a limited amount of research conducted on aggression in general among this particular population and with relational aggression specifically, there is a lack of sufficient research. It is necessary and important to take into account the role of culture relative to aggression research as according to Smokowski, David-Ferdon, and Stroupe (2009), the United States is currently experiencing the largest growth of minority populations in its history, with American Indians making up 0.3% of the population. As of 1990 to 2007, this population experienced a 65% increase; and among youth of this culture, they represent slightly more than a quarter of this population (Smokowski et al., 2009). Due to this growth rate, the role of cultural differences will play a significant role in the understanding of both the perpetration and victimization of relational aggression. This can pave the way for mental health professionals as well as educators in the school system when dealing with aggression-related problems in a culturally-sensitive manner.

Despite a lack of research with regard to the American Indian population and relational aggression as it has yet to be examined, national estimates of youth violence have been provided by Smokowski et al. (2009). Specifically, higher rates of violence perpetration and victimization have been reported among American Indian/Alaskan Native (AI/AN) youth more than peers of other ethnic groups. For instance, in 2001, 44%

of AI/AN youth reported engaging in a physical fight while only 32.2% of non-Hispanic White, 36.5% of non-Hispanic Black, and 35.8% of Hispanic youth reported this same behavior. Injuries resulting from a physical fight one year prior to 2001 were reported by 8.6% of AI/AN youth in comparison to 3.4% of non-Hispanic White, 5.3% of non-Hispanic Black, and 4.4% of Hispanic youth. Other estimates have indicated that 10.1% of AI/AN students were more likely to report that they had been threatened or injured with a weapon at school than 8.5% of non-Hispanic White, 9.3% of non-Hispanic Black, and 8.9% of Hispanic students. Furthermore, 12.8% of AI/AN students reported that they felt too unsafe to attend school in comparison to 5.0% of non-Hispanic White, 9.8% of non-Hispanic Black, and 10.2% of Hispanic students.

Gender estimates for AI/AN youth indicated that more male students (50%) than female students (38.8%) reported having been in a fight. Additionally, 13% of male students reported being threatened or injured with a weapon compared to 7.2% of female students. On the other hand, female students had a higher rate of feeling unsafe attending school at 14.1% in comparison to their male counterparts at 11.6%. Based on the National Crime Victimization Survey (NCVS) from 1991-2002, American Indian youth had an average violent crime victimization rate that was higher than other ethnic groups. In particular, American Indian youth had 2 times the victimization rate of Blacks, 2.5 times the rate of Whites, and 4.5 times the rate of Asian/Pacific Islander youth (Smokowski et al., 2009).

According to the CDC (2010), research from their Youth Risk Behavior Surveillance Survey found higher prevalence rates of aggression and delinquency among minority adolescents in comparison to White adolescents (Klein, Cornell, & Konold,

2012). Altogether, most of the research available has found aggression to be higher among minorities, including American Indians. Data on the prevalence of aggression or bullying based on race or ethnicity has, otherwise, been inadequate. As cited by Mercado-Crespo and Mbah (2013), there has been a need for racial/ethnic minorities' youth violence data for decades. The authors also noted that most currently utilized youth violence data sources do not collect or report data by race or ethnicity (Mercado-Crespo & Mbah, 2013).

Smokowski et al. (2009) discussed the role of acculturation with regard to interpersonal and self-directed violence among three minority populations including Latino, Asian/Pacific Islander, and American Indian/Alaskan Native. As defined in the article, acculturation refers to “phenomena which results when groups of individuals having different cultures come into continuous first hand contact with subsequent changes in the original culture patterns of either or both groups” (Smokowski et al., 2009, p. 217). This definition takes on a bidirectional concept. An alternative definition of acculturation was also provided which stresses a unidirectional trend. Alternatively, acculturation refers to “the differences and changes in values and behaviors that individuals make as they gradually adopt the cultural values of the dominant society.” Based on empirical studies which were reviewed by the authors, there was no research found on the association between acculturation and interpersonal violence for American Indian/Alaska Native adolescents. The authors have only found four investigations related to self-directed violence for this ethnic group (Smokowski et al., 2009). This review in addition to a general lack of research reflects the need for more research to be conducted within Indian country.

Acculturation among American Indians was discussed more in depth in a book chapter by McDonald and Gonzalez (2006). Within this chapter, four possible levels of acculturation discussed by LaFromboise, Trimble, and Mohatt were reviewed by the authors. The four levels include traditional, transitional, bicultural, and assimilated. Those at the traditional level adhere to traditional customs, values, and language. At the transitional level, individuals maintain some aspects of both their culture of origin as well as the dominant or mainstream culture but do not completely identify with either group. A bicultural individual is one who has been accepted into the mainstream culture while still maintaining their connection to their culture of origin. Lastly, the assimilated individual adopts the mainstream culture and no longer adheres to practicing the traditional cultural ways. The authors also discuss other possible levels of acculturation that have been formulated by Garrett and Pichette which include traditional, marginal, bicultural, assimilated, and pantraditional. Although very similar to those levels described above, the major distinctions are within the marginal and pantraditional levels. The marginal level is used in place of the transitional level and is described as an individual who may speak both languages but has lost touch with Native cultural ways and at the same time is not fully accepted into the mainstream culture. Lastly, the pantraditional level has been included and is characterized by an individual who has been exposed to or adopts some mainstream values but has returned to the old ways. It has been suggested that a bicultural level of acculturation is desirable in order to attain positive mental health among American Indians (McDonald & Gonzalez, 2006).

Although national estimates of youth violence have been provided in the literature in addition to the role of acculturation, research on specifically American Indian

aggression is greatly needed. Within the literature, one particular study was found with regard to the importance of parental perceptions on child aggression among urban American Indian mother/child dyads. In this exploratory study, Tsethlikai, Peyton, and O'Brien (2007) were particularly interested in exploring potential links between mothers' perceptions of the importance of American Indian culture in their lives, their attitude towards life, life satisfaction, negative attributions for their child's behavior, and the child's behavior and responses regarding aggression.

The authors presented a description of American Indian parenting as it relates to their focus and primary objectives of their study. It was stated that American Indian parenting attitudes are based on a "relational worldview" in that all relationships are interdependent. This describes the components of relationships that include those of a spiritual, contextual, psychological, and physical nature. The extended family system is characteristic of the American Indian culture, although there are families of this population that also fall into the nuclear family system. The importance of American Indian culture has played a role in historical trauma. For example, American Indian families have encountered many difficulties in maintaining their cultural identity, knowledge, and beliefs. These difficulties included forced assimilation by the U.S. government which led many children to be raised away from their families in urban settings, in boarding schools, and by foster families. Although there is a scarcity of research, this worldview, family context, and the role of historical trauma may serve as a foundation for understanding American Indian parenting beliefs and perceptions and how it relates to and influences the development of child aggression.

As discussed by Tsethlikai et al., attributional biases have been found to influence the behavior of children such that parents tend to form attributions based on their understanding of why their children behave as they do. With attribution theory, there are positive and negative attribution biases. A positive attribution bias is characterized by a belief that the child's misbehavior is caused by factors that are unintentional, uncontrollable, unstable, and not global, whereas a negative attribution bias reflects a belief in that the misbehavior is regarded as intentional, controllable, stable, and global. Tsethlikai et al. were, therefore, interested in examining whether mother's social perceptions and negative attributions for their child's misbehaviors were associated with child aggression.

Within this study, the sample Tsethlikai et al. used consisted of 20 urban American Indian mother/child dyads with the child ranging in age from 6 to 9. Mothers in this study represented 13 American Indian tribes/nations. Measures of the study consisted of various questionnaires and interviews pertaining to demographic information, perception of American Indian culture, perceptions of life, life satisfaction, maternal perception of their child's behavior, and child aggression. The results revealed that American Indian mothers mostly agreed, on average, that they endorsed their culture as important in their lives. Furthermore, they rated their life satisfaction as "somewhat good." A link was found between a strong sense of cultural identity in the mother's life and a more optimistic attitude towards life. The authors explained that this link could be due to maintaining a strong sense of cultural identity within an urban setting which, in turn, resulted in a more positive outlook on life for them.

With regard to child aggression, maternal negative attributions were found to predict their children's aggressive behaviors and responses. In particular, those who reported more negative attributions for misbehavior reported higher numbers of aggressive behaviors. However, less aggressive responses to peer provocation were reported by their children. A potential explanation for this finding as stated by the authors was that there might be differences in the home versus school context. "It could be that urban American Indian children are less likely to respond aggressively to conflict with a peer because they attribute blame to themselves rather than to the peer" (Tsethlikai et al., 2007, p. 78). According to the authors, research by Duran and Duran has speculated that many American Indians "internalize the oppressor" due to constant oppression. In conclusion, a strong sense of cultural identity is linked to having a more positive outlook in life. Additionally, there is an association found between maternal negative attributions and increased child aggression (Tsethlikai et al., 2007).

Clearly, research is greatly needed within the American Indian population and on relational aggression not only to highlight the importance of cultural factors but also to expand the availability of psychological literature. Furthermore, a cultural understanding of relational aggression can serve an important role in the case conceptualization of clients before deciding upon the best treatment approach.

The Impact of Relationally Aggressive Behavior on Psychological Functioning

Not only can relational aggression be distressing during the moment it occurs but it can also have long-term consequences on one's psychological functioning. Based on a review of research by Leff et al. (2010), relational aggression in association with several deficits including social problem-solving and emotion regulation deficits; peer

relationship difficulties; and internalizing problems such as anxiety, depression, and loneliness have all been found to be predictive of future psychosocial maladjustment. Other difficulties were noted including behavioral challenges, academic deficits, teacher-student conflicts, and lack of school engagement. Especially among girls, mood and eating disorders later in life have been found to be related to relational aggression (Leff et al., 2010). In addition to anxiety and depression, research reviewed by Yoon et al. (2004) has indicated that victims of relational aggression have lower self-esteem. Those children who are targeted on a frequent basis are more rejected by their peer groups and accepted less by them as well. With regard to gender, girls, in comparison to boys, tend to be more relationship-oriented and place a higher value on intimacy. Therefore, greater threats are posed to girls when they experience relational aggression. Consequently, more negative outcomes are likely to arise, especially within social and emotional areas of functioning (Yoon et al., 2004).

In terms of those who are perpetrators, aggressive girls have been shown to be at risk for serious problems including school failure and dropout, violent relationships with romantic partners, teen pregnancy, repetitive harsh punishment toward their children, and an increasing participation in criminal behaviors (Letendre, 2007). Perpetrators are also more likely to be disliked and lack prosocial behavior in comparison to those who are non-aggressive (Yoon et al., 2004). Taken together, relational aggression is a serious problem that can result in a wide range of adjustment difficulties for many individuals (Yoon et al., 2004; Leff et al., 2010; Letendre, 2007).

Additional studies have further explored the link between relational aggression and one's adjustment. According to one particular study, Prinstein, Boergers, and

Vernberg (2001) examined the social-psychological adjustment of aggressors and victims of both overt and relational aggression. These authors were interested in replicating and extending previous work on relational aggression, examining whether relational aggression would emerge as a distinct construct from overt aggression, exploring unique contributions of relational aggression and victimization in predicting concurrent social-psychological adjustment, examining the co-occurrence of multiple forms of aggression or victimization, and finally, determining whether close friend social support served as a potential buffer from the negative consequences associated with peer victimization.

The total sample consisted of 566 adolescents in grades 9 through 12. The authors used a number of measures including a revised version of the Peer Experiences Questionnaire, Center for Epidemiological Studies-Depression (CES-D), UCLA Loneliness Scale, Harter's Self-Perception Profile for Adolescents (SPPA), Diagnostic Interview Schedule for Children (DISC) Predictive Scales, and the Close Friend subscale of the Social Support Scale for Children and Adolescents. The results indicated that previous work was replicated with regard to relational aggression and victimization as being distinct forms of peer behavior. Concurrent social-psychological adjustment was found to be uniquely associated with relational aggression and victimization. Specifically, peer aggression was found to relate to symptoms of disruptive behavior disorder while victimization was found to associate with internalizing symptoms. Gender differences were found between peer aggression and externalizing symptoms, such that both relational and overt aggression occurred among girls rather than boys. No gender differences were indicated for relational victimization in association with internalizing symptoms.

The findings also indicated that victims of multiple forms of aggression (e.g., relational and overt aggression) are at greater risk for adjustment difficulties (e.g., depression, loneliness, and externalizing symptoms) than those victims of one or no form of aggression. Lastly, close friendship support was found to buffer the effects of relational victimization on adjustment. In sum, social-psychological adjustment is uniquely associated with both aggressors and victims and occurs at a greater level when multiple forms of aggression are present (Prinstein et al., 2001).

Links to concurrent and longitudinal adjustment were explored with regard to reactive and proactive subtypes of relational and physical aggression in a study by Mathieson and Crick (2010). The functional subtype of proactive aggression is based on goal-directed and deliberate aggression in addition to a lack of emotion or physiological arousal. On the other hand, the subtype of reactive aggression refers to a retaliatory and defensive response to provocation and is characteristic of high emotional and physiological arousal. The author's goals were aimed at examining adjustment problems in association with the subtypes of both relational and physical aggression, whether aggression would predict increases in adjustment problems over time, and gender interactions.

The sample consisted of a total of 125 third grade students. The students were assessed at two different time periods, at time 1 (during third grade) and one year later at time 2 (during fourth grade). During the time 2 assessment, the sample size decreased to 119 participants. At both periods of time, teachers completed the Children's Social Behavior Subtypes Scale (CSBSS) and the Teacher's Report Form (TRF). According to the results, reactive relational aggression was found to be more strongly associated with

internalizing rather than externalizing problems. Furthermore, it was the only subtype to be uniquely associated with internalizing problems. Although stronger for reactive physical aggression, both proactive and reactive physical aggression were found to be associated with externalizing problems at time 1. Over time, proactive relational aggression was found to be linked to decreases in internalizing problems. Lastly, gender interactions were found for externalizing problems. Specifically, reactive relational aggression was found to associate with concurrent externalizing problems for boys only while this subtype was found to associate with internalizing problems for both boys and girls. Among the other subtype, proactive relational aggression, girls rather than boys had higher levels of concurrent externalizing problems but experienced decreases in these problems over time. Altogether, functional subtypes of both relational and physical aggression were found to associate with adjustment difficulties, mainly internalizing and externalizing problems. Furthermore, gender differences were evident for externalizing problems (Mathieson & Crick, 2010).

Later interpersonal functioning was also explored in an additional study by Ledley et al., (2006); however, this study specifically examined childhood teasing. Although this behavior is not referring to relational aggression in particular, it is relevant in that it can occur within the realm of relational aggression. This study explored not only the relationship between childhood teasing and later interpersonal functioning but also various aspects of this type of functioning.

The sample consisted of 414 college students. The students completed questionnaire packets consisting of several measures including the Teasing Questionnaire-Revised, Revised Adult Attachment Scale, Janis-Field Self-Esteem Scale

with Appearance Subscale, and Friendship Information Questionnaire. Based on the results, there was no relation found between the frequency of teasing and the number of friends that participants reported having during early adulthood. An explanation for this, provided by the authors, suggested that those with a recalled history of childhood teasing may have impairments in the quality rather than the quantity of their friendships. A recalled history of frequent teasing was found to associate with less comfort with intimacy and closeness, less comfort in trusting and depending on others, and a greater worry about being unloved or abandoned in relationships. Further analyses revealed a significant relationship between being teased in the social, appearance, and performance domains and later attachment difficulties. This finding was found to present across gender. The family background and academic domains showed more modest relationships. Additionally, being teased in the social, performance, and appearance domains were associated with greater impairment in later interpersonal functioning than being teased in the academic and family domains. Finally, more frequent childhood teasing in the social, appearance, and performance domains was found to associate with decreased social confidence in young adulthood. Overall, these findings suggested that long-term negative effects can arise from various forms of teasing (Ledley et al., 2006).

Rationale for Current Study

It is clear that relational aggression appears to be a problematic issue in our society today and especially within the school environment. Currently, there are no other studies that examine this form of aggression among American Indian youth. Due to an increase in population among this group, a greater amount of research is needed in order to study, identify, and understand relational aggression in American Indian youth. More

research is also needed with American Indians across groups as they may vary with regard to the occurrence of aggressive behaviors. Especially among American Indians from the Northern Plains region, very little research if any at all has been conducted on this specific group relative to aggression in general. Therefore, the current study will examine cultural, gender, and grade level differences in relational aggression among Northern Plains American Indian and Caucasian middle school children.

It is important to understand how relational aggression may be exhibited within both cultures in addition to exploring possible interactions among gender, grade level, and culture. This will not only improve the literature with regard to the American Indian population but will also benefit those who are mental health professionals and educational personnel in identifying and understanding relational aggression among their clients or students. These individuals can also better target the needs of their clients or students relative to adjustment issues they may currently or later experience as a result of the occurrence of relational aggression.

Hypotheses

It is hypothesized that 1) the perpetration of relational aggression will be higher among girls than boys. It is further hypothesized that 2) relational aggression will be higher among children who are in 6th grade as this is when aggressive behavior is at its highest “peak” (around age 11), according to the literature. In contrast, relational aggression is hypothesized to be lower among the other grade levels, those children who are in 7th and 8th grade. Lastly, I hypothesize that 3) there will be cultural differences; in that relational aggression will be greater among Northern Plains American Indian children than Caucasian children. Furthermore, among Northern Plains American Indian

children, relational aggression will be lower among those who are traditional than non-traditional.

CHAPTER II

METHOD

Participants

In order to ensure adequate power, a power analysis using G*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) was performed in which a medium effect size (.25) and the most conventional alpha level (.05) was used. A large enough sample size was obtained as suggested by Kazdin (1998) in order to increase the confidence in the equivalence of groups. As also referenced by Pallant (2007), Stevens (1996) suggests that a sample size of 100 or more subjects is large enough where ‘power is not an issue.’ However, due to the large ethnic range of subjects that participated in the current study (as discussed below), this resulted in unequal group sizes for the American Indian and Caucasian groups.

The overall sample consisted of a total of 488 middle school students. A total of 270 students were recruited from the Turtle Mountain Community Middle School (TMCMS) located in Belcourt, North Dakota, 156 students were recruited from Grafton Central Middle School located in Grafton, North Dakota, and 62 students were recruited from Larimore Jr/Sr High School located in Larimore, ND. According to demographic data from the U.S. Department of Education (2012), TMCMS is a rural public school that consists of an estimated total of 326 students with the majority population making up American Indian youth. Grafton Central Middle School is a public school that is more

than 35 miles from an urbanized area that comprises an estimated total of 249 students with Caucasian youth making up the majority population followed by Hispanic youth. Due to this wide ethnic range, only those students listed as Caucasian were included in the analyses despite collecting data from all students. Larimore Jr/Sr High School is a public school also within a rural area that is approximately 25 miles from an urbanized area. This school comprises an estimated total of 246 middle and high school students with Caucasian youth making up the majority population (FindTheBest, 2014).

The ethnicity of the overall sample consisted of 265 (54.3%) American Indian, 156 (32%) Caucasian, 45 (9.2%) Hispanic, 2 (.4%) African American, 3 (.6%) Asian, and 16 (3.2%) multiracial youth. Those participants comprising the Northern Plains American Indian sample were enrolled members of the Turtle Mountain Band of Chippewa Reservation. For the purposes of the current study, only Caucasian and Northern Plains American Indian students were included in the analyses. The overall sample consisted of 277 (56.8%) males and 211 (43.2%) females. The ages of the participants ranged from 11 to 16 ($M = 12.91$, $SD = 1.00$). The grade level of the participants consisted of 142 (29.1%) sixth, 175 (35.9%) seventh, and 171 (35%) eighth grade students.

Measures

Demographic information was measured by the use of a questionnaire created by the author of the current study (included in the Appendix). This questionnaire asked for information about gender, ethnicity, age, grade level, and the name of the school the participant attends.

The Self-Report Questionnaire of Relational/Indirect/Social Aggression (RISA-Self-Report; Mazur, 2008) measures the frequency of the individuals' engagement in

behavior of relational/indirect/social aggression. This measure consists of 16 total items which are rated on a 5-point Likert scale ranging from “Never” to “All the Time.” The scores of this measure demonstrate that the higher the scores, the higher the endorsement of this behavior. The internal consistency has been stated to be very strong ($\alpha = .86$) (Mazur, 2008). Descriptive statistics of the current sample have shown the scores to range from 16 to 80 with an overall mean score of 27.17 (See Table 1).

Several items from Card, Little, Hawley, and Hodges’ (2005) Peer Nomination Inventory was used in order to measure aggression and social status. The peer nomination inventory consists of a total of 18 items overall with 12 items combined to form eight constructs, including (1) overt aggression, (2) relational aggression, (3) instrumental aggression, (4) reactive aggression, (5) victimization, (6) peer influence, (7) perceived popularity, and (8) social preference. The four constructs including (1) overt aggression, (2) relational aggression, (7) perceived popularity, and (8) social preference were the only constructs included in the current study. Participants were asked to nominate the classmates in their classroom they felt fit best with each of the four construct items (Card et al., 2005). In collecting classroom nominations from students, it should be noted that there were slight class size differences. The scoring procedure involved tallying up the total number of nominations each child received which generated a single score. This score is indicative of an overall nomination of each participant by his or her peers. Refer to Table 1 for the range of scores and overall mean values of the current sample. Descriptive statistics have shown peer-nominated relational aggression scores or nominations to range from 0 to 16 with an overall mean score of 1.60. For peer-nominated overt aggression, scores or nominations ranged from 0 to 27 with an overall

mean score of 3.09. Higher nominations represent higher overt and relational aggression while lower nominations reflect lower overt and relational aggression. Perceived popularity and social preference nominations were broken down by ethnic group (Caucasian and American Indian) as school settings were separated based on ethnicity. For the Caucasian group, descriptive statistics have shown peer-nominated perceived popularity scores or nominations to range from 0 to 28 with an overall mean score of 3.98. For peer-nominated social preference, scores or nominations ranged from 0 to 14 with an overall mean score of 4.28. For the American Indian group, descriptive statistics have shown perceived popularity scores or nominations to range from 0 to 32 with an overall mean score of 2.28. For social preference, scores or nominations ranged from 0 to 15 with an overall mean score of 3.16. Higher nominations indicate a higher level of popularity and a higher preference to hang out with the nominated peer. On the reverse for these two constructs, lower nominations indicate a lower level of popularity and a lower preference to hang out with the nominated peer.

The Social Group Questionnaire (Olufs, 2013) is a self-report inventory which was designed to measure social group membership. This inventory was currently in the development and evaluation process during the time of administration for the current study. The author of this inventory attempted to investigate which social group a child belongs, including the accepted, rejected, or neglected groups. The inventory originally consisted of a total of 21 questions, with seven items pertaining to the traits and behaviors associated with each social group. Participants of the current study were administered this inventory and were asked to rate how often each of the statements were true for them based on never, sometimes, often, or always true. Following Oluf's evaluation of the

utility of this inventory, the results of an exploratory principal component analysis, reliability analysis, and a series of ANOVAs found that 6 out of the 21 total items did not contribute to the measure. Furthermore, the remaining 15 items were found to load onto two components, making up two separate, unrelated scales. The analysis of ANOVAs also revealed that this inventory was able to distinguish rejected children from other peers but was unable to distinguish accepted from neglected or controversial children. The overall conclusion indicated that there is some utility for use of this measure but only with identifying those children belonging to the rejection group. Taking these findings into account, it was decided that this inventory would not be included in the current analyses due to its limited utility in identifying peers belonging to the other social groups (Olufs, 2013).

The Northern Plains Biculturalism Inventory-III (NPBI-III; J.D. McDonald, personal communication, 2011-2014; Baker, 2008) is a biculturalism measure that assesses cultural identification of either the American Indian (AICI) or European American (EACI) culture. This measure is a revised version of the Northern Plains Biculturalism Inventory-Revised (NPBI-R). It initially comprised 28 items but has since been reduced to 27 items as the utility of this inventory is currently in process of evaluation. This inventory asks questions pertaining to American Indian and European culture. The scoring of the NPBI-III remains the same as the previous version but instead uses the mean scores of each scale (AICI and EACI) rather than the median split procedure. The means that were used were 24 for the EACI scale and 40 for the AICI scale. Specifically, American Indian cultural identification is reflected by a high score on the AICI scale along with a low score on the EACI scale based on cultural immersion. On

the reverse, European American cultural identification is indicative of a low score on the AICI scale and a high score on the EACI scale. Bicultural identification is indicated when both AICI and EACI scores are above the mean whereas marginal identification is shown when both AICI and EACI are below the mean (J.D. McDonald, personal communication, 2011-2014; Baker, 2008).

Table 1

Range of Scores and Overall Mean Values of the Measures used in the Study

Variable	Combined Sample	Caucasian	American Indian
	Score Ranges	Score Ranges	
Self-Report Relational Aggression	16-80 (27.17)		
Peer-Nominated Relational Aggression	0-16 (1.60)		
Peer-Nominated Overt Aggression	0-27 (3.09)		
Peer-Nominated Perceived Popularity		0-28 (3.98)	0-32 (2.28)
Peer-Nominated Social Preference		0-14 (4.28)	0-15 (3.16)

Note. Combined sample refers to both Caucasian and Northern Plains American Indians
 Note. Mean values are listed in parentheses

Procedure

Participants were recruited from three locations in North Dakota: the Turtle Mountain Community Middle School in Belcourt, Grafton Central Middle School in Grafton, and Larimore Jr/Sr High School in Larimore. Exemption from parental consent was sought in order to accommodate the large sample size chosen for the study. As an alternative, letters explaining the nature of the study were sent to the parents/guardians of the students where they will have the option to opt out. Following this completion, students were given an opportunity to provide their voluntary assent in order to

participate in the study. Prior to the administration of the questionnaires, participants were informed of their opportunity to withdraw from the study at any time without penalty. Additionally, they were informed that their information will be kept strictly confidential and anonymous. They were also provided with an opportunity to ask questions as well as have their questions answered. Participants were then asked to complete the Demographic Questionnaire, Self-Report Questionnaire of Relational/Indirect/Social Aggression (RISA-Self-Report), Peer Nomination Inventory (4-constructs), Social Group Questionnaire, and Northern Plains Biculturalism Inventory-III (NPBI-III).

After completion of the questionnaires, participants were debriefed. They were provided with contact information (phone number, classroom number) of their school counselor and were encouraged to discuss any concerns, thoughts, or feelings they had in response to any of the topics covered in the questionnaires. Lastly, a gift card drawing was held in order to compensate students for their participation.

CHAPTER III

RESULTS

Descriptive Characteristics

Several analyses were conducted using the SPSS Statistical Package. Descriptive statistics were performed in order to analyze the characteristics of the sample. The base rates of peer-nominated and self-report relational aggression as well as peer-nominated overt aggression were examined by ethnicity, gender, grade level, and age. Mean values and standard deviations are shown in Table 2. Self-report relational aggression was found to be higher among middle school students who were Caucasian, female, in 6th grade, and at the age of 12. In contrast, self-report relational aggression was found to be lower among middle school students who were American Indian, male, in 8th grade, and at the age of 15.

Peer-nominated relational aggression was also found to be higher among middle school students who were Caucasian, female, in 6th grade, and at the age of 12. In reverse, peer-nominated relational aggression was found to be lower among middle school students who were American Indian, male, in 8th grade, and at the age of 11.

Similar to relational aggression findings, overt aggression was also found to be higher among middle school students who were Caucasian, female, in 6th grade, and at the age of 12. Consistent with only peer nominated relational aggression findings, this construct was also found to be lower among middle school students who were American Indian, male, in 8th grade, and at the age of 11.

Table 2

Means and Standard Deviations among Demographic Variables and Measures of the Study

	Self-Report Relational Aggression	Peer-Nominated Relational Aggression	Peer-Nominated Overt Aggression
Ethnicity			
Caucasian	27.26 (9.42)	2.03 (2.66)	3.56 (4.26)
American Indian	27.11 (8.42)	1.35 (2.11)	2.80 (4.36)
Gender			
Boys	25.36 (7.72)	.98 (1.41)	2.79 (4.22)
Girls	29.40 (9.53)	2.38 (2.98)	3.45 (4.45)
Grade			
6th	27.98 (9.04)	1.71 (2.11)	3.31 (4.57)
7th	27.68 (9.96)	1.65 (2.47)	3.14 (4.55)
8th	26.01 (7.12)	1.46 (2.42)	2.84 (3.91)
Age			
11	25.97 (8.16)	1.19 (1.35)	1.94 (1.91)
12	27.99 (8.48)	1.91 (2.43)	3.55 (4.48)
13	27.47 (9.54)	1.52 (2.38)	3.13 (5.03)
14	26.60 (8.84)	1.50 (2.49)	2.74 (3.64)
15	24.57 (4.67)	1.29 (1.86)	3.29 (4.45)
16	22.00 ---	1.00 ---	9.00 ---

Note. Mean values are listed first followed by standard deviations which are listed in parentheses

Base rates of perceived popularity and social preference were also included in the current study. As mentioned previously, rates for gender, grade level, and age were analyzed separately for each cultural group rather than as a whole. Mean values and standard deviations are shown in Table 3. Among Caucasian youth, popularity nominations were higher among those who were male, in 7th grade, and at the age of 13 while popularity nominations were lower among those who were female, in 6th grade, and at the age of 11. Among American Indian youth, popularity nominations were higher among those who were female, in 6th grade, and at the age of 12 while popularity nominations were lower among those who were male, in 7th grade, and at the age of 15.

Lastly, among Caucasian youth, there was a higher preference to hang out with those who were female, in 7th grade, and at the age of 13 while there was a lower preference to hang out with those who were male, in 6th grade, and at the age of 11. Among American Indian youth, there was a higher preference to hang out with those who were female, in 6th grade, and at the age of 12 while there was a lower preference to hang out with those who were male, in 7th grade, and at the age of 15.

Table 3

Means and Standard Deviations among Demographic Variables and Additional Measures of the Study

	Peer-Nominated Perceived Popularity		Peer-Nominated Social Preference	
	Caucasian	American Indian	Caucasian	American Indian
Gender				
Boys	4.49 (6.03)	1.88 (3.30)	4.17 (2.83)	3.05 (2.50)
Girls	3.47 (4.50)	2.84 (4.85)	4.38 (2.78)	3.32 (2.83)
Grade				
6th	3.55 (3.30)	2.72 (4.56)	4.00 (2.87)	3.60 (3.14)
7th	4.20 (6.26)	1.93 (3.29)	4.50 (2.73)	2.83 (2.25)
8th	3.95 (5.06)	2.15 (4.10)	4.16 (2.87)	3.03 (2.37)
Age				
11	1.33 (1.21)	2.08 (2.33)	3.33 (1.75)	3.08 (2.25)
12	3.71 (3.96)	2.77 (4.60)	4.29 (2.73)	3.63 (3.18)
13	4.62 (6.68)	1.72 (2.95)	4.48 (2.85)	2.67 (2.22)
14	4.04 (5.16)	2.63 (5.02)	4.20 (2.95)	3.34 (2.42)
15	2.33 (2.94)	.63 (.74)	4.00 (2.90)	1.88 (1.64)
16	--- (---)	.00 (---)	--- (---)	3.00 (---)

Note. Mean values are listed first followed by standard deviations which are listed in parentheses

Group Comparisons among Demographic Variables and Measures of the Study

A series of separate independent-samples t-tests were conducted in order to determine gender and cultural differences among the various measures of the study including both self-report and peer-nominated relational aggression, peer-nominated overt aggression, peer-nominated perceived popularity, and peer-nominated social

preference (see Table 4 and Table 5). Mean values and standard deviations are also presented in this table. There was a significant difference in self-report relational aggression found between males and females, $t(340) = -4.58, p < .005$ (two-tailed), suggesting that there were more females who reportedly engaged in relationally aggressive behavior than males. The magnitude of the difference in the means (mean difference = -4.04, 95% CI: -5.77 to -2.31) was moderate (eta squared = .06).

There was a significant difference in peer-nominated relational aggression found between males and females, $t(252) = -5.92, p < .005$ (two-tailed), suggesting that there were more females than males that were nominated by their peers as being relationally aggressive. The magnitude of the difference in the means (mean difference = -1.40, 95% CI: -1.87 to -.93) was moderate (eta squared = .09).

There was no significant difference in scores for males and females in peer-nominated overt aggression, $t(419) = -1.54, p = .12$ (two-tailed). The magnitude of the difference in the means (mean difference = -.65, 95% CI: -1.49 to .18) was small (eta squared = .01).

There was no significant difference in scores for males and females in peer-nominated perceived popularity, $t(419) = -.79, p = .43$ (two-tailed). The magnitude of the difference in the means (mean difference = -.36, 95% CI: -1.25 to .53) was very small (eta squared = < .001).

There was no significant difference in scores for males and females in peer-nominated social preference, $t(419) = -1.27, p = .21$ (two-tailed). The magnitude of the difference in the means (mean difference = -.34, 95% CI: -.87 to .19) was very small (eta squared = < .001).

Table 4

Independent-Samples T-Tests Comparing Males and Females on the Measures of the Study

Variable	<i>t</i>	<i>df</i>	<i>p</i>	Males	Females
				<i>M (SD)</i>	<i>M (SD)</i>
Self-Report Relational Aggression	-4.58	340	.000*	25.36 (7.72)	29.40 (9.53)
Peer-Nominated Relational Aggression	-5.92	252	.000*	.98 (1.41)	2.38 (2.98)
Peer-Nominated Overt Aggression	-1.54	419	.12	2.79 (4.22)	3.45 (4.45)
Peer-Nominated Perceived Popularity	-.79	419	.43	2.75 (4.56)	3.11 (4.70)
Peer-Nominated Social Preference	-1.27	419	.21	3.42 (2.66)	3.76 (2.85)

* $p < .005$

In examining ethnicity, there was no significant difference in scores for Caucasians and American Indians in self-report relational aggression, $t(398) = .17$, $p = .87$ (two-tailed). The magnitude of the difference in the means (mean difference = .15, 95% CI: -1.63 to 1.94) was very small (eta squared = < .001).

There was a significant difference in peer-nominated relational aggression found between Caucasians and American Indians, $t(269) = 2.74$, $p < .05$ (two-tailed), suggesting that there were more Caucasians than American Indians that were nominated by their peers as being relationally aggressive. The magnitude of the difference in the means (mean difference = .68, 95% CI: .22 to 1.15) was small (eta squared = .02).

There was no significant difference in scores for Caucasians and American Indians in peer-nominated overt aggression, $t(419) = 1.72$, $p = .09$ (two-tailed). The magnitude of the difference in the means (mean difference = .75, 95% CI: -.11 to 1.61) was small (eta squared = .01).

There was a significant difference in peer-nominated perceived popularity found between Caucasians and American Indians, $t(260) = 3.46, p < .005$ (two-tailed), suggesting that popularity nominations were higher among the Caucasian group. The magnitude of the difference in the means (mean difference = 1.71, 95% CI: .73 to 2.68) was small (eta squared = .03).

There was a significant difference in peer-nominated social preference found between Caucasians and American Indians, $t(419) = 4.09, p < .005$ (two-tailed), suggesting that social preference nominations were higher among the Caucasian group. The magnitude of the difference in the means (mean difference = 1.11, 95% CI: .58 to 1.65) was small (eta squared = .04).

Table 5

Independent-Samples T-Tests Comparing Caucasians and American Indians on the Measures of the Study

Variable	<i>t</i>	<i>df</i>	<i>p</i>	Caucasians	American Indians
				<i>M (SD)</i>	<i>M (SD)</i>
Self-Report Relational Aggression	.17	398	.87	27.26 (9.42)	27.11 (8.42)
Peer-Nominated Relational Aggression	2.74	269	.006*	2.03 (2.66)	1.35 (2.11)
Peer-Nominated Overt Aggression	1.72	419	.09	3.56 (4.26)	2.81 (4.36)
Peer-Nominated Perceived Popularity	3.46	260	.001**	3.98 (5.33)	2.28 (4.03)
Peer-Nominated Social Preference	4.09	419	.000**	4.28 (2.80)	3.16 (2.64)

* $p < .05$; ** $p < .005$

A series of separate one-way analysis of variance tests were conducted in order to determine grade level and age differences among the various measures of the study including both self-report and peer-nominated relational aggression, peer-nominated

overt aggression, peer-nominated perceived popularity, and peer-nominated social preference (see Table 6 and Table 7). There were no statistically significant differences found at the $p < .05$ level for the three grade levels (6th, 7th, and 8th) in self-report relational aggression: $F(2, 397) = 1.97, p = .14$; peer-nominated relational aggression: $F(2, 418) = .42, p = .66$; peer-nominated overt aggression: $F(2, 418) = .40, p = .67$; peer-nominated perceived popularity: $F(2, 418) = .00, p = 1$; and peer-nominated social preference: $F(2, 418) = .17, p = .84$.

Table 6

One-Way Analysis of Variance Comparing Grade Level on the Measures of the Study

Variable	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
Self-Report Relational Aggression	1.97	2	397	.14
Peer-Nominated Relational Aggression	.42	2	418	.66
Peer-Nominated Overt Aggression	.40	2	418	.67
Peer-Nominated Perceived Popularity	.00	2	418	1
Peer-Nominated Social Preference	.17	2	418	.84

Among age, there were no statistically significant differences found at the $p < .05$ level for the six age groups (11-16) in self-report relational aggression: $F(5, 394) = .75, p = .59$; peer-nominated relational aggression: $F(5, 415) = .76, p = .58$; peer-nominated overt aggression: $F(5, 415) = 1.26, p = .28$; peer-nominated perceived popularity: $F(5, 415) = .86, p = .51$; and peer-nominated social preference: $F(5, 415) = .84, p = .52$.

Table 7

One-Way Analysis of Variance Comparing Age Groups on the Measures of the Study

Variable	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
Self-Report Relational Aggression	.75	5	394	.59
Peer-Nominated Relational Aggression	.76	5	415	.58
Peer-Nominated Overt Aggression	1.26	5	415	.28
Peer-Nominated Perceived Popularity	.86	5	415	.51
Peer-Nominated Social Preference	.84	5	415	.52

Due to the significant differences found among gender and ethnicity in the independent-samples t-tests, a multivariate analysis of covariance (MANCOVA) was conducted to further explore group differences while controlling for these demographic variables as covariates (see Table 8). Five dependent variables were included in the analysis: self-report relational aggression, peer-nominated relational aggression, peer-nominated overt aggression, peer-nominated perceived popularity, and peer-nominated social preference. The independent variables were age and grade level. Gender and ethnicity were included as covariates in this analysis.

Preliminary assumption testing was conducted and has noted violations among univariate and multivariate outliers/normality, linearity, homogeneity of regression slopes, homogeneity of variance-covariance matrices, and equality of variance. Taking these violations into consideration, a more conservative alpha level of .01 was used to determine significance. Furthermore, in examining the multivariate tests of significance, Pillai's Trace (a more robust statistic) was used to account for the violation of

assumptions. At the .01 level, there was a statistically significant difference between males and females on a combination of the dependent variables, $F(5, 384) = 15.58, p < .001$; Pillai's Trace = .17; partial eta squared = .17. A statistically significant difference between Caucasians and American Indians on a combination of the dependent variables was also found, $F(5, 384) = 4.76, p < .001$; Pillai's Trace = .06; partial eta squared = .06. A Bonferroni adjusted alpha level of .002 was used when analyzing the between-subjects effects. Consistent with previous analyses, there were no significant differences and no significant interaction between age groups or grade levels on any of the dependent variables, even after adjusting for gender and ethnicity. Gender was found to have significant relationships with self-report relational aggression and peer-nominated relational aggression while ethnicity was found to have significant relationships with peer-nominated perceived popularity and peer-nominated social preference.

Table 8

MANCOVA: Exploring Differences between Groups while Controlling for Gender and Ethnicity

Source	Dependent Variable	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
Gender	Self-Report Relational Aggression	1	21.64	.000*	.053
	Peer-Nominated Relational Aggression	1	32.22	.000*	.077
	Peer-Nominated Overt Aggression	1	1.74	.188	.004
	Peer-Nominated Perceived Popularity	1	.11	.736	.000
	Peer-Nominated Social Preferencen	1	.58	.446	.001

Table 8. Continued

Source	Dependent Variable	<i>df</i>	<i>F</i>	<i>p</i>	Partial Eta Squared
Ethnicity	Self-Report Relational Aggression	1	.14	.707	.000
	Peer-Nominated Relational Aggression	1	7.92	.005	.020
	Peer-Nominated Overt Aggression	1	3.56	.060	.009
	Peer-Nominated Perceived Popularity	1	14.70	.000*	.036
	Peer-Nominated Social Preference	1	17.38	.000*	.043
Age	Self-Report Relational Aggression	5	1.52	.184	.019
	Peer-Nominated Relational Aggression	5	.58	.717	.007
	Peer-Nominated Overt Aggression	5	2.16	.058	.027
	Peer-Nominated Perceived Popularity	5	.77	.572	.010
	Peer-Nominated Social Preference	5	1.09	.365	.014
Grade Level	Self-Report Relational Aggression	2	3.28	.039	.017
	Peer-Nominated Relational Aggression	2	.35	.705	.002
	Peer-Nominated Overt Aggression	2	2.99	.052	.015
	Peer-Nominated Perceived Popularity	2	.95	.387	.005
	Peer-Nominated Social Preference	2	.56	.573	.003
Age x Grade Level	Self-Report Relational Aggression	2	2.01	.135	.010
	Peer-Nominated Relational Aggression	2	.10	.907	.001
	Peer-Nominated Overt Aggression	2	2.14	.119	.011
	Peer-Nominated Perceived Popularity	2	2.17	.116	.011
	Peer-Nominated Social Preference	2	3.30	.038	.017

Note. A Bonferroni adjusted alpha level of .002 was used to determine significance when analyzing the dependent variables separately.

* $p < .002$

Associations among Demographic Variables and Measures of the Study

A Pearson product-moment correlation coefficient was conducted to explore possible associations among grade level and age with the various measures of the study (see Table 9). Age and grade level were not found to correlate with any of the measures.

Table 9

Correlations between Demographic Variables and Measures of the Study

	1	2	3	4	5	6	7
1. Grade Level	--	--	-.092	-.043	-.043	-.002	-.027
2. Age		--	-.051	-.036	-.002	.018	-.007
3. Self-Report Relational Aggression			--	--	--	--	--
4. Peer-Nominated Relational Aggression				--	--	--	--
5. Peer-Nominated Overt Aggression					--	--	--
6. Peer-Nominated Perceived Popularity						--	--
7. Peer-Nominated Social Preference							--

Note. Correlations were assessed at the .01 and .05 levels.

Group Comparisons among Demographic Variables

A second series of independent-samples t-tests were conducted in order to determine differences by culture and the other demographic variables included in the study, such as gender, grade level, and age. These results along with mean values and standard deviations are shown in Table 10. There was no significant difference in gender found between Caucasians and Northern Plains American Indians, $t(321) = 1.76, p = .08$ (two-tailed). The magnitude of the difference in the means (mean difference = .09, 95% CI: -.01 to .19) was small (eta squared = .01).

There was a significant difference in grade level found between Caucasians and Northern Plains American Indians, $t(419) = 2.86, p < .005$ (two-tailed), suggesting that there was a larger proportion of Caucasian students enrolled in higher grade levels in comparison to American Indian students. The magnitude of the difference in the means (mean difference = .23, 95% CI: .07 to .38) was small (eta squared = .02).

There was a significant difference in age found between Caucasians and Northern Plains American Indians, $t(419) = 3.39, p < .005$ (two-tailed), with older participants among the Caucasian sample. The magnitude of the difference in the means (mean difference = .34, 95% CI: .14 to .54) was small (eta squared = .03).

Table 10

Independent-Samples T-Tests Comparing Caucasians and American Indians on Demographic Variables

Variable	<i>t</i>	<i>df</i>	<i>p</i>	Caucasian	American Indian
				<i>M (SD)</i>	<i>M (SD)</i>
Gender	1.76	321	.077	1.50 (.50)	1.41 (.49)
Grade Level	2.86	419	.004*	2.21 (.73)	1.98 (.82)
Age	3.39	419	.001*	13.10 (.95)	12.76 (1.02)

* $p < .005$

Relational Aggression and Acculturation

A third series of independent-samples t-tests were conducted in order to determine differences in relational aggression for traditional and non-traditional Northern Plains American Indian students. These results along with mean values and standard deviations are shown in Table 11. There was no significant difference found between

traditional and non-traditional American Indian students on self-report relational aggression, $t(198) = .027, p = .98$ (two-tailed). The magnitude of the difference in the means (mean difference = .03, 95% CI: -2.38 to 2.45) was very small (eta squared = < .001).

There was a significant difference found between traditional and non-traditional American Indian students on peer-nominated relational aggression, $t(211) = 2.28, p < .05$ (two-tailed), suggesting that nominations of relational aggression were higher among traditional students and lower among non-traditional students. The magnitude of the difference in the means (mean difference = .63, 95% CI: .09 to 1.18) was small (eta squared = .02).

Table 11

Independent-Samples T-Tests Comparing Acculturation Levels of American Indians on Relational Aggression

Variable	<i>t</i>	<i>df</i>	<i>p</i>	Traditional	Non-traditional
				<i>M (SD)</i>	<i>M (SD)</i>
Self-Report Relational Aggression	.027	198	.978	27.42 (8.75)	27.39 (8.33)
Peer-Nominated Relational Aggression	2.28	211	.023*	1.68 (2.22)	1.05 (1.80)

* $p < .05$

Comparisons and Interactions among Demographic Variables on Relational Aggression

A three-way factorial multivariate analysis of variance (MANOVA) or a 2 x 2 x 3 factorial MANOVA was conducted in order to determine differences and explore interactions among culture, gender, and grade level on relational aggression (see Table

12). Two dependent variables were used: self-report relational aggression and peer-nominated relational aggression. The independent variables were culture, gender, and grade level.

Preliminary assumption testing was conducted with no violations noted for sample size or multicollinearity. Upon further assumption testing, violations were noted among univariate and multivariate outliers/normality, linearity, homogeneity of variance-covariance matrices, and equality of variance. Taking these violations into consideration, a more conservative alpha level of .01 was used to determine significance. Furthermore, in examining the multivariate tests of significance, Pillai's Trace (a more robust statistic) was used to account for the violation of assumptions. At the .01 level, there was a statistically significant difference found between males and females on the combined dependent variables, $F(2, 387) = 15.88, p < .001$; Pillai's Trace = .08; partial eta squared = .08. When the dependent variables were examined separately, statistically significant differences were found using a Bonferroni adjusted alpha level of .005. Significant differences were found only for gender on self-report relational aggression, $F(1, 388) = 15.94, p < .001$, partial eta squared = .04 and peer-nominated relational aggression, $F(1, 388) = 24.68, p < .001$, partial eta squared = .06 (see Table 13). A further analysis of the mean scores indicated that females reported a higher perpetration of relational aggression ($M = 29.55$) than males ($M = 25.70$). Females were also nominated by their peers more so ($M = 2.37$) than males ($M = 1.10$) in displaying relational aggression.

Further inspection of the data have found no statistically significant differences by ethnicity, $F(2, 387) = 3.11, p = .046$; Pillai's Trace = .02; partial eta squared = .02 or grade level, $F(4, 776) = 1.21, p = .307$; Pillai's Trace = .01; partial eta squared = .01 on

the combined dependent variables. There were no statistically significant differences that were found among the interactions between gender and ethnicity, $F(2, 387) = .09$, $p = .915$; Pillai's Trace = $< .001$; partial eta squared = $< .001$; gender and grade level, $F(4, 776) = .48$, $p = .753$; Pillai's Trace = $.01$; partial eta squared = $< .001$; ethnicity and grade level, $F(4, 776) = 2.03$, $p = .088$; Pillai's Trace = $.02$; partial eta squared = $.01$; or gender, ethnicity, and grade level, $F(4, 776) = 1.80$, $p = .127$; Pillai's Trace = $.02$; partial eta squared = $.01$ on the combined dependent variables. No further analyses regarding between-subjects effects, group mean comparisons, or follow-up univariate analyses were warranted as findings of the initial multivariate tests were found to be insignificant with the exception of gender.

Table 12

MANOVA: Comparisons and Interactions among Demographics on the Combined Dependent Variables

Combined DV's	IV	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>p</i>	Value	Partial Eta Squared
Self-Report Relational Aggression	Gender	15.877	2	387	.000*	.076	.076
	Ethnicity	3.105	2	387	.046	.016	.016
Peer-Nominated Relational Aggression	Grade Level	1.206	4	776	.307	.012	.006
	Gender x Ethnicity	.088	2	387	.915	.000	.000
	Gender x Grade Level	.477	4	776	.753	.005	.002
	Ethnicity x Grade Level	2.031	4	776	.088	.021	.010
	Gender x Ethnicity x Grade Level	1.798	4	776	.127	.018	.009

Note. A more conservative alpha level of .01 was used to determine significance.

* $p < .01$

Table 13

Separate Analyses of the Dependent Variables by Gender

IV	DV	<i>F</i>	<i>df</i>	<i>df 2</i>	<i>p</i>	Partial Eta Squared
Gender	Self-Report Relational Aggression	15.935	1	388	.000*	.039
	Peer-Nominated Relational Aggression	24.676	1	388	.000*	.060

Note. A Bonferroni adjusted alpha level of .005 was used to determine significance when analyzing the dependent variables separately.

* $p < .005$

CHAPTER IV

DISCUSSION

The perpetration of relational aggression (both self-report and peer-nominated) was found to be significantly higher among girls than boys. This finding is in support of the first hypothesis as well as previous literature findings (Kistner et al., 2010; Crick & Grotpeter, 1995; Kuppens et al., 2008; & Rys & Bear, 1997). Gender was also found to have a significant relationship with relational aggression as revealed in further analyses.

Although the current findings have revealed a higher base rate of relational aggression among middle school students who were in 6th grade and a lower base rate among those who were in 7th and 8th grade, these findings were not statistically different. The base rate findings are consistent with research cited by Nishioka et al. (2011), which indicated a higher rate of bullying in 6th grade and that it declined in higher grade levels. However, due to insignificant findings, the second hypothesis was not supported.

The literature discussed that aggressive behavior is at its highest “peak” during age 11 (Björkqvist et al., 1992). Although not statistically significant, the results of the current study revealed a slightly higher rate, in that relational aggression was higher among those who were at the age of 12. In fact, peer nominated relational aggression was found to be lower among 11-year old children while self-report relational aggression was lower among those who were 15-years old. Despite this age inconsistency, the gap between 11 and 12 years old is small. It is likely that children of this age range both fell within the same grade level (6th grade). Again, although base rate findings have indicated

age differences, they were not found to be statistically different. Therefore, it is more suitable to indicate that the second hypothesis was also not supported with regard to age.

Cultural differences were also examined with regard to the perpetration of relational aggression. Based on descriptive trends only, both self-report and peer-nominated relational aggression were found to be higher among Caucasian rather than Northern Plains American Indian children. A statistically significant difference was noted only for peer-nominated relational aggression, with Caucasian students being nominated by their peers more so than American Indian students. These findings did not support the third hypothesis. The hypothesis stated that American Indian students would display a higher level of relational aggression than Caucasian students. Due to the lack of previous research with regard to the American Indian population and relational aggression, this hypothesis could only be based upon general aggression conclusions. For instance, national estimates of youth violence revealed higher rates of violence perpetration among American Indian/Alaskan Native (AI/AN) youth more than peers of other ethnic groups (Smokowski et al., 2009). Additionally, American Indian families have encountered many difficulties in maintaining their cultural identity, knowledge, and beliefs due to historical trauma. Previous literature has suggested that parental perceptions among American Indian families could have likely been influenced by these historical factors, therefore, playing a role in the development of child aggression (Tsethlikai et al., 2007).

Although there is no current literature that is available to explore the inferences of this reverse finding, one possibility may be due to the differences in disclosure. Among American Indians, it is culturally appropriate to display a modest degree of guardedness (Witko, 2006). It is possible that American Indian students of the current study were less

willing than Caucasian students to disclose personal and sensitive information pertaining to bullying behavior and social acceptance/popularity.

With examining specifically Northern Plains American Indian students, the level of acculturation was an important factor that was considered when measuring the perpetration of relational aggression. As previous literature has suggested, a bicultural level of acculturation is desirable in order to attain positive mental health among American Indians (McDonald & Gonzalez, 2006). Within the current study, the four levels of acculturation were split in two groups, traditional (traditional and bicultural) and non-traditional (marginal and assimilated). It was, therefore, hypothesized that more traditional (including those who are bicultural) Northern Plains American Indian students would display lower relationally aggressive behavior (consistent with having positive mental health) than those who were non-traditional.

Findings of the current study revealed interesting differences. When examining self-report relational aggression, there was not a significant difference found between acculturation levels. However, when peer-nominated relational aggression was measured, a significant difference and the reverse was found. Specifically, students nominated peers who were more traditional as being higher in relational aggression than those peers who were non-traditional. These findings were not in support of the third hypothesis. A larger proportion of Northern Plains American Indian students in this sample did not identify with a strong sense of American Indian identity. It may be possible that this could have influenced the scores on this measure. Another possibility could be the misinterpretation of the culturally appropriate response of guardedness. For instance, a traditional student

who displays some degree of guardedness can be easily misread by his or her peers as engaging in ignoring or excluding behaviors when in fact this may not be the case.

Although the focus of the current study is on relational aggression, other aspects of aggression and social status are highlighted as the interpersonal context can play an important role and contribute to our understanding of children's peer relations (Card et al., 2005). In examining peer-nominated overt aggression, no statistically significant differences were found for gender, ethnicity, grade level, and age. However, regarding the descriptive trends of this form of aggression, a similar pattern was found, in that 6th grade girls who were at the age of 12 had higher rates of physically aggressive behavior. A similar cultural pattern was also found, in that Caucasian students had higher rates of physically aggressive behavior than those students who were American Indian. Lower rates were found among 8th grade boys and those who were at the age of 11, which is again inconsistent with the finding that age 11 is when aggression is at its highest "peak" (Björkqvist et al., 1992).

As previously mentioned (see method and results section), perceived popularity and social preference nominations were broken down by ethnicity (Caucasian and American Indian groups) in order to support likely cultural differences in how each group may view, define, or identify these two constructs. As Trimble and Jumper-Thurman (2002) point out, "most American Indians experience and assign different meanings to the world, life, and certainly cognition and behavior compared to majority culture members" (as cited in Mio & Iwamasa, 2003, p. 41). In support of this possibility, statistical differences were, in fact, found when both cultural groups were analyzed together. In particular, popularity and social preference nominations were found to be

significantly higher among the Caucasian group. No significant differences were found for these constructs (perceived popularity and social preference) by gender, grade level, and age.

Despite insignificant findings, the base rates were explored. Specifically, in examining the descriptive trends among Caucasian youth, perceived popularity and social preference nominations were higher among those who were in 7th grade and at the age of 13 and were lower among those who were in 6th grade and at the age of 11. Regarding gender, an interesting distinction was found. Boys received higher nominations for popularity than girls; however, there was less of a preference to hang out with them while there was more of a preference to hang out with girls. In exploring the trends among American Indian youth, popularity and social preference nominations were similar to relational and overt aggression findings in terms of high rates. Specifically, nominations for this cultural group were higher among 6th grade girls who were at the age of 12. Nominations were lower among 7th grade boys who were at the age of 15.

Again, although differences in the trends or base rates were found among peer-nominated overt aggression, popularity, and social preference, they were not found to be statistically significant, even after controlling for gender and ethnicity. Additional findings revealed that ethnicity has significant relationships with both perceived popularity and social preference.

Altogether, both self-report and peer-nominated relational aggression were found to be significantly higher among girls than boys. Caucasian students were nominated by their peers as being significantly more relationally aggressive than American Indian students. American Indian students nominated peers who were more traditional as being

significantly higher in relational aggression than those peers who were non-traditional. No significant differences were found for grade level, age, ethnicity, or acculturation level on self-report relational aggression. No significant differences were found for grade level or age on peer-nominated relational aggression. Peer-nominated overt aggression and measures of social status also did not indicate any significant findings based on all demographic variables studied. An exploration of the descriptive trends or base rates have found that both relational and overt aggression were found to be highest among middle school students who were Caucasian, female, in 6th grade, and at the age of 12 while lower rates were found among middle school students who were American Indian, male, in 8th grade, and were variable in age. Social status trends in gender, grade level, and age were present when Caucasian and American Indian youth were analyzed separately.

In exploring associations among grade level and age with the various measures of the study, findings have revealed no significant correlations among these demographic variables with any of the measures including both self-report and peer-nominated relational aggression, peer-nominated overt aggression, peer-nominated perceived popularity, and peer-nominated social preference.

Lastly, comparisons and interactions were explored among culture, gender, and grade level on relational aggression. There was a statistically significant difference found between males and females on both self-report and peer-nominated relational aggression. In particular, females reported a higher perpetration of relational aggression and were also nominated by their peers more so than males in displaying relational aggression. This finding is also in support of the first hypothesis and consistent with earlier findings

of the current study, that relational aggression will be higher among girls than boys. Further analyses revealed no statistically significant differences among ethnicity or grade level on self-report and peer-nominated relational aggression combined. When exploring for possible interactions among the data, no statistically significant differences were found for gender and ethnicity, gender and grade level, ethnicity and grade level, or gender, ethnicity, and grade level on self-report and peer-nominated relational aggression combined.

Clinical Implications

The findings and purpose of the current study highlight important implications for mental health professionals, educators in the school system, parents, and researchers. The first step in better understanding relational aggression is becoming aware of the demographic characteristics associated with it. This awareness can lead to greater accuracy in the identification of relationally aggressive behaviors and who is at risk for developing such behaviors. Clinically and educationally, many efforts have been undertaken to develop and carry out anti-bullying prevention and intervention programs (Yoon et al., 2004). However, prevention and intervention programs specifically addressing relational aggression are lacking. Programs such as these need to be implemented in the school system and in clinical settings in order to educate students on the damaging effects of rumors, peer isolation, and other manipulative behaviors (Yoon et al., 2004).

In support of the finding that relational aggression is more salient among early middle school girls, intervention efforts are highly recommended to occur especially during this time and among this population. Prevention strategies should focus on

increasing students' knowledge of relationally aggressive behaviors, exploring the relationship between social status and relational aggression, and building an awareness of the negative consequences that can result from the perpetration and victimization of relational aggression.

It is highly important to recognize and be aware of the cultural norms associated within interpersonal relations and behaviors. Cultural differences do exist and cross-cultural sensitivity is an essential component to better understanding these differences. Especially among the American Indian culture, the values and responses are different in comparison to those of the mainstream American culture. For instance, as highlighted in the findings above, Witko (2006) discussed that American Indians only disclose what they want you to know and no more. It is culturally appropriate for this cultural group to display guardedness, especially toward non-Indians due to the historical factors of powerlessness and mistrust. It is important to recognize this value not as an interpersonal relational problem or a sign of relational aggression but as a cultural norm.

While prevention and intervention programs are needed with regard to relational aggression, these programs should incorporate culturally appropriate approaches and techniques. The use of psychoeducation can be used to benefit students of both the American Indian and mainstream culture. In delivering mental health services to American Indian students or clients, it is important to demonstrate respect through active listening and not interrupting. The use of reflective responding, descriptive statements, self-disclosure, and storytelling or narrative techniques should be used instead of direct questioning (Witko, 2006). Each of these helpful tools can better serve to correct the

cultural misunderstandings that may arise, increase cultural awareness and competence, and promote a more effective therapeutic relationship.

Limitations of the Current Study and Future Research Directions

There was a lack of group equivalence among several demographic variables of the current study. Within the overall sample, there was a large ethnic range. Among those who were included in the analyses (Northern Plains American Indians and Caucasians), the majority of the participants consisted of Northern Plains American Indian students. With regard to grade level, there was a significantly lower number of 6th grade students. This decrease was primarily due to recruitment difficulties. Due to an unequal sample size between cultural groups and between grade levels, it is possible that the data could have been impacted. For instance, several assumptions of the MANOVA and MANCOVA were violated. It is likely that these assumptions were violated due to unequal sample sizes.

The above limitations are also supported by additional findings. For instance, while examining group comparisons among culture and the other demographic variables of the study, findings have revealed some significant differences. In particular, there was a larger proportion of Caucasian students enrolled in higher grade levels in comparison to American Indian students. This finding may likely be the result of unequal group sizes with regard to grade level and ethnic group, in that there was a smaller proportion of 6th grade students in general and with less Caucasian students belonging to that grade level. There was a second significant difference found with regard to age. The average age of Caucasian students was thirteen whereas twelve was the average age for Northern Plains American Indian students. Similarly, older age among Caucasian students is also likely

the result of unequal group sizes among grade levels. Gender did not serve as a significant difference between the cultural groups.

Only one tribal community, the Turtle Mountain Band of Chippewa, was included in the current study. Although research is greatly needed, especially within the Northern Plains region, this reduces the generalizability of the results to other tribal communities. Therefore, further relational aggression research is needed across American Indian tribes in order to study cross-tribal differences as well as improve the literature.

Only a small proportion of Northern Plains American Indian students identified with a strong sense of American Indian identity. Due to this shortage, it is uncertain as to whether or not it has impacted the data. Additionally, there is a possibility of disclosure differences based on cultural norms. As noted above, it is possible that Northern Plains American Indian students were less willing than Caucasian students to disclose sensitive information pertaining to the survey questions due to the culturally appropriate response of guardedness.

Initially, a multivariate analysis of covariance (MANCOVA) was chosen to examine differences and explore interactions among culture, gender, and grade level on relational aggression while controlling for acculturation. Due to the possibility of varying acculturation levels of the American Indian subjects, the level of acculturation was pre-selected as a covariate because of its potential influence on relational aggression scores. However, since the acculturation measure is designed to identify cultural orientation only among the American Indian group, this created a problem in the MANCOVA analysis procedures. Specifically, there were two cultural groups being included in the analyses (American Indians and Caucasians) with acculturation data for only one of those groups

(American Indians). The research design was therefore unsuitable for use with the MANCOVA as it required acculturation data from both cultural groups. Although the MANOVA was used as an alternative, the possible confounding influence of acculturation could no longer be measured. It is, therefore, uncertain as to whether or not acculturation influenced scores on relational aggression.

Lastly, the Social Group Questionnaire was administered to participants but removed from the analyses due to its limited utility in social group identification. This measure was in the development and evaluation process during the time of administration. Due to these findings, it was decided not to perform explorations between social group membership (accepted, rejected, and neglected) and relational aggression.

Currently, other literature with regard to the American Indian population and relational aggression is non-existent. Further research within and across tribal communities is needed in order to explore differences and generalize findings. Research on relational aggression across cultures is still very limited and further studies are needed in order to expand the literature and better understand how relational aggression may be exhibited among various cultural groups. There is also a need for more literature on the prevalence rates of aggression and youth violence in general based on ethnicity/race. Continued research within the areas of social status and group membership may help to better understand the dynamics of peer relations and its influence on the development of relational aggression. Developmental trends, gender differences, and long-term consequences of relational aggression continue to remain very important factors that warrant further investigation. Future research directions should also focus on increasing program evaluations on exclusively relational aggression in order to establish effective

prevention and intervention strategies. Since children spend a great deal of time within the educational context and especially where peer relations are salient, research-based interventions implemented within this environment would be most helpful.

Conclusion

In sum, middle school girls reported significantly higher relational aggression and were nominated by their peers for displaying this form of aggression at a significantly higher rate than boys. Caucasian students did not report significantly higher relational aggression but were nominated by their peers as being significantly more relationally aggressive than American Indian students. Among Northern Plains American Indian children, significant differences in acculturation were found on peer-nominated relational aggression only; students nominated peers who were more traditional as being higher in relational aggression than those peers who were non-traditional. Differences in grade level and age on both self-report and peer-nominated relational aggression were insignificant. While an emphasis was placed on relational aggression in the current study, other forms of aggression and social status were also explored in order to understand how these constructs may play a role in peer relations. Based on all demographic variables that were studied relative to peer-nominated overt aggression and measures of social status, no significant differences were found. Although several hypotheses, especially with regard to grade level and age, were not supported by the current findings, an exploration of the descriptive trends or base rates have revealed interesting findings that are worth noting. Both relational and overt aggression were found to be highest among middle school students who were Caucasian, female, in 6th grade, and at the age of 12 while lower rates were found among middle school students who were American Indian,

male, in 8th grade, and were variable in age. Social status trends in gender, grade level, and age were present when Caucasian and American Indian youth were analyzed separately. The findings of the current study did not find any significant interactions among relational aggression and the demographic variables of the study. Lastly, group comparisons and associations were explored on the various demographics and measures of the study.

In spite of the current study's limitations, insignificance among some of the findings, and lack of support with regard to the cultural hypotheses, a foundation has been created with respect to the literature on the study of relational aggression among American Indian children. Future research should continue to build upon this foundation in order to lead to greater awareness of relational aggression, implement prevention and intervention programs within the education system, and recognize the cultural norms and differences within interpersonal relations and behaviors.

APPENDIX

APPENDIX

DEMOGRAPHIC INFORMATION

Please answer the following questions by placing a circle around your answer or filling in the blanks.

What is your gender? BOY GIRL

What is your ethnicity/racial background? CAUCASIAN

AMERICAN INDIAN

OTHER _____ (fill in the blank)

How old are you? _____ (fill in the blank)

What grade are you in? 6 7 8

What is the name of your school? _____ (fill in the blank)

REFERENCES

- Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review*, 9(3), 212-230.
- Baker, L. I. (2008). Convergent and discriminant validity of biculturalism and depression among Northern Plains American Indians. The University of North Dakota. *ProQuest Dissertations and Theses*. Retrieved October 12, 2011, from <http://ezproxy.library.und.edu/login?url=http://search.proquest.com/docview/304537834?accountid=28267>
- Björkqvist, K., Lagerspetz, K. M. J., & Kaukiainen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression. *Aggressive Behavior*, 18, 117-127.
- Bongers, I. L., Koot, H. M., van der Ende, J., & Verhulst, F. C. (2004). Developmental trajectories of externalizing behaviors in childhood and adolescence. *Child Development*, 75(5), 1523-1537.
- Buss, D. M. & Shackelford, T. K. (1997). Human aggression in evolutionary psychological perspective. *Clinical Psychology Review*, 17(6), 605-619.
- Card, N. A., Little, T. D., Hawley, P. H., & Hodges, E. V. E. (2005). Gender effects in peer nominations for aggression and social status. *International Journal of Behavioral Development*, 29(2), 146-155.
- Cashdan, E. & Downes, S. M. (2012). Evolutionary perspectives on human aggression: Introduction to the special issue. *Human Nature*, 23, 1-4.

- Coyne, S. M., Archer, J., Eslea, M., & Liechty, T. (2008). Adolescent perceptions of indirect forms of relational aggression: Sex of perpetrator effects. *Aggressive Behavior, 34*, 577-583.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66*, 710-722.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.
- FindTheBest. (2014). *U.S. Department of Education: Grafton Central Middle School* [Data Set]. Retrieved from [http://public-schools.findthebest.com/l/68093/Grafton Central-Middle-School](http://public-schools.findthebest.com/l/68093/Grafton-Central-Middle-School)
- FindTheBest. (2014). *U.S. Department of Education: Larimore High School* [Data Set]. Retrieved from <http://public-schools.findthebest.com/l/68152/Larimore-High-School>
- FindTheBest. (2014). *U.S. Department of Education: Turtle Mountain Community Middle School* [Data Set]. Retrieved from <http://public-school.findthebest.com/l/68001/TurtleMt-Community-Middle-School#tabs-1>
- Hadley, M. (2004). Relational, indirect, adaptive, or just mean: Recent studies on aggression in adolescent girls – Part II. *Studies in Gender and Sexuality, 5*(3), 331-350.
- Henington, C., Hughes, J. N., Cavell, T. A., & Thompson, B. (1998). The role of relational aggression in identifying aggressive boys and girls. *Journal of School Psychology, 36*(4), 457-477.

- Kazdin, A. E. (1998). *Research design in clinical psychology* (3rd ed.). Needham Heights, MA: Allyn & Bacon.
- Keenan, K., Shaw, D., Delliquadri, E., Giovannelli, J., & Walsh, B. (1998). Evidence for the continuity of early problem behaviors: Application of a developmental model. *Journal of Abnormal Child Psychology*, 26(6), 441-454.
- Kistner, J., Counts-Allan, C., Dunkel, S., Drew, C. H., David-Ferdon, C., & Lopez, C. (2010). Sex differences in relational and overt aggression in the late elementary school years. *Aggressive Behavior*, 36, 282-291.
- Klein, J., Cornell, D., & Konold, T. (2012). Relationships between bullying, school climate, and student risk behaviors. *School Psychology Quarterly*, 27(3), 154-169.
- Kuppens, S., Grietens, H., Onghena, P., Michiels, D., & Subramanian, S. V. (2008). Individual and classroom variables associated with relational aggression in elementary-school aged children: A multilevel analysis. *Journal of School Psychology*, 46, 639-660.
- Ledley, D. R., Storch, E. A., Coles, M. E., Heimberg, R. G., Moser, J., & Bravata, E. A. (2006). The relationship between childhood teasing and later interpersonal functioning. *Journal of Psychopathology and Behavioral Assessment*, 28(1), 33-40.
- Lee, E. (2009). The relationship of aggression and bullying to social preference: Differences in gender and types of aggression. *International Journal of Behavioral Development*, 33(4), 323-330.

- Leff, S. S., Waasdorp, T. E., & Crick, N. R. (2010). A review of existing relational aggression programs: Strengths, limitations, and future directions. *School Psychology Review*, 39(4), 508-535.
- Letendre, J. (2007). "Sugar and spice but not always": Gender socialization and its impact on development and maintenance of aggression in adolescent girls. *Child and Adolescent Social Work Journal*, 24(4), 353-368.
- Mathieson, L. C., & Crick, N. R. (2010). Reactive and proactive subtypes of relational and physical aggression in middle childhood: Links to concurrent and longitudinal adjustment. *School Psychology Review*, 39(4), 601-611.
- Mazur, J. L. (2008). *Exploring the mechanisms of sex and grade differences in relational/indirect/social aggression*. Retrieved October 3, 2011, from University of Saskatchewan Website: http://library2.usask.ca/theses/available/etd-07282008-105507/unrestricted/mazur_j.pdf
- McDonald, J. D., & Gonzalez, J. (2006). Cognitive-behavioral therapy with American Indians. In P. A. Hays & G. Y. Iwamasa (Eds.). *Culturally responsive cognitive-behavioral therapy: Assessment, practice, and supervision* (pp. 23-45). Washington, DC: American Psychological Association.
- Mercado-Crespo, M. C. & Mbah, A. K. (2013). Race and ethnicity, substance use, and physical aggression among U.S. high school students. *Journal of Interpersonal Violence*, 28(7), 1367-1384.
- Mesman, J., Bongers, I. L., & Koot, H. M. (2001). Preschool developmental pathways to preadolescent internalizing and externalizing problems. *Journal of Child Psychology and Psychiatry*, 42(5), 679-689.

- Mio, J. S. & Iwamasa, G. Y. (Eds.). (2003). *Culturally diverse mental health: The challenges of Research and Resistance*. New York: Brunner-Routledge.
- Nishioka, V., Coe, M., Burke, A., Hanita, M., & Sprague, J. (2011). Student-reported overt and relational aggression and victimization in grades 3-8. (Issues & Answers Report, REL 2011-No. 114). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest. Retrieved from <http://files.eric.ed.gov/fulltext/ED518227.pdf>
- Olufs, E. (2013). *Effects of video-based education versus self-disclosure education on Elementary school children's social acceptance attitudes and prosocial behaviors towards a peer with Tourette's Syndrome*. (Unpublished doctoral dissertation). University of North Dakota, Grand Forks.
- Olweus, D. (1997). Bully/victim problems in school: Facts and intervention. *European Journal of Psychology of Education*, 12(4), 495-510.
- Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows, 3rd Edition*. Maidenhead: Open University Press.
- Prinstein, M. J., Boergers, J., & Vernberg, E. M. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology*, 30(4), 479-491.
- Rose, A. J., Swenson, L. P., & Waller, E. M. (2004). Overt and relational aggression and perceived popularity: Developmental differences in concurrent and prospective relations. *Developmental Psychology*, 40(3), 378-387.

- Rys, G. S., & Bear, G. G. (1997). Relational aggression and peer relations: Gender and developmental issues. *Merrill-Palmer Quarterly*, 43(1), 87-106.
- Smokowski, P. R., David-Ferdon, C., & Stroupe, N. (2009). Acculturation and violence in minority adolescents: A review of the empirical literature. *The Journal of Primary Prevention*, 30, 215-263.
- Tapper, K., & Boulton, M. J. (2004). Sex differences in levels of physical, verbal, and indirect aggression amongst primary school children and their associations with beliefs about aggression. *Aggressive Behavior*, 30, 123-145.
- Tsethlikai, M., Peyton, V., & O'Brien, M. (2007). Exploring maternal social perceptions and child aggression among urban American Indians. *American Indian and Alaska Native Mental Health Research: The Journal of the National Center*, 14(1), 63-84.
- Vaughn, M. G., Fu, Q., Bender, K., DeLisi, M., Beaver, K. M., Perron, B. E., & Howard, M. O. (2010). Psychiatric correlates of bullying in the United States: Findings from a national sample. *Psychiatric Quarterly*, 81, 183-195.
- Witko, T. M. (Ed.). (2006). *Mental health care for urban Indians: Clinical insights from Native practitioners*. Washington, DC: American Psychological Association.
- Yoon, J. S., Barton, E., & Taiariol, J. (2004). Relational aggression in middle school: Educational implications of developmental research. *The Journal of Early Adolescence*, 24(3), 303-318.
- Young, E. L., Boye, A. E., & Nelson, D. A. (2006). Relational aggression: Understanding, identifying, and responding in schools. *Psychology in the Schools*, 43(3), 297-312.