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Investigating Outcomes of Aggressive Behaviour and Popularity in School-Aged Children

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Abstract

The purpose of this study is to examine the relationship between aggressive behaviour and the adjustment of children and adolescents. The moderating interactions between aggressive behaviour and popularity, stability or rejection are examined in relation to the adjustment outcomes of physical health, self-esteem and depression. Participants were given peer nominations to measure overt and relational aggression, popularity and rejection. A self-report was used to measure children's physical health, self-esteem and depression. To determine the stability of children's specific peer groups, the social cognitive map was used. Participants were 1,033 students (444 boys, 589 girls) in Grades 4 to 8 inclusive in Southwestern Ontario. Nine hierarchical regressions were analyzed and findings partially supported the hypothesis. Popularity was found to moderate the relationship between aggressive behaviour for both self-esteem and depression. Stability and rejection were not found to be significantly related to aggressive behaviour. Future research is needed to investigate the moderating relationships between aggressive behaviour and adjustment outcomes.

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Investigating Outcomes of Aggressive Behaviour and Popularity in School-Aged Children

Children spend considerable time with their peers and friends and healthy relationships within these contexts are important. One of the strongest predictors of maladjustment in children is peer directed aggression. For decades, researchers have documented aggression as a major risk factor for children, with links to poor academic engagement (Kamper & Ostrov, 2009), peer rejection (Esteveza., Emlerb, Cavac, Candido, & Inglesa, 2014) and internalizing and externalizing difficulties (Lynch, Kistner, Stephens, David-Ferdon, 2016). Investigations have also acknowledged the complexity of aggressive behaviour by recognizing its gender-based subtypes (Rose & Waller, 2004). However, some conceptualizations of aggression have led to the conclusion that all aggressive children are not maladapted (Card & Little, 2006). Closer investigations of contextual effects have shown there are numerous considerations when using aggression as a predictor of adjustment. In previous studies, there have been differing findings which suggest that aggressive behaviour can have both positive (Wei & Jonson-Reid, 2011) and negative adjustment outcomes (Kamper & Ostrov,2009) and this can depend on the context in which these children are immersed (Rose & Waller, 2004). One consideration involves the status of aggressive children. Popularity has been found to be significantly related to aggression (Rose & Waller, 2004) but has differing results depending on how status is measured (e.g., acceptance, perceived popularity status or rejection status). In this study, we are examining the relationship between aggressive behavior and adjustment and measuring the moderating effects of social status, rejection and peer group stability. More specifically we will consider the prediction of aggression to physical health, self-esteem and depression.

Types of Aggression

It is important to highlight the difference between overt and relational aggression as it has been found to have differing results for children. Overtly aggressive children are viewed as your "typical" bully, they use physical force and coercive behaviour to get their goals obtained. Relational aggression is used in a more subtle way to achieve desired goals that involves rumor spreading, lying, and manipulative behaviour and victims may not realize they are being targeted. In one study (Rose & Waller, 2004), it was found that between 25% to 40% of aggressive children use both relational and overt aggression, but that children will usually favour one aggression form or the other. Boys and girls do differ in the types and rates of their aggressive behavior but depending on the context both relational and overt aggression can be found to overlap. In general, boys have been found to use more forms of overt aggressive behaviour whereas girls tend to use more relational aggression (Smith, Rose, & Schwartz-Mette, 2010). Although there are differences between the two types of aggressive behaviours, it is important to understand that relational and overt aggression are highly overlapping behaviours in children (Wei & Jonson-Reid, 2011).

Aggressive Behaviour and Physical Health

Being a victim of aggressive behaviour can cause stress that may alter a person's state of emotions, which can produce anxiety and depression, and some physiological changes in children (Cox, 1995). When changes in a child's physiological state do happen, this may lead to a decreased immunity to infections and higher levels and ranges of health complaints (Rigby, 1998). When compared with students who experience little or no aggressor/victim problems, physical health for victims is found to be significantly poorer over a range of indicators, such as somatic symptoms, anxiety, depression and social dysfunction (Rigby, 1998). Research for physical health complaints or symptoms of aggressive children specifically is more limited.

However, aggressive behaviour may be considered a "life-stress" because aggressive children tend to experience persistent, stressful, and conflict ridden interpersonal exchanges. Physical health in aggressive children may be poor because of the constant state of high intensity these children display in their interactions with others (Rigby, 1998). However, the literature also shows that aggressive behavior does not always lead to a negative reaction. When aggression is used in a calculated way to enhance relationships, there may be few physical or stressful outcomes. In one study, it was concluded that using overtly aggressive behaviour is not necessarily directly associated with physical health, instead their results suggest that the development of poor physical health may consist of a psychosomatic reaction for victims only (Baldry, 2004). Thus, physical health outcomes may depend on the overall nature of children's interpersonal experiences, rather than aggressive behavior alone.

Aggressive Behaviour and Self-Esteem

Self-esteem seems to be related to aggressive behaviour but the direction of the relationship is unclear in the literature. An important theory used in self-esteem research is known as social identity theory (Tajfel & Turner, 1979), which suggests that peer group membership plays a critical role in a child's self-evaluation. Children use categorization of peers, social identification and social comparison within their peer groups as the basis of self-evaluations. In some cases, children will maintain memberships with peers by complying to group norms for aggression and securing their group identity (Ellis, & Zarbatany, 2007b). This shows how self-esteem can be affected by peer membership and the interactions made within these groups.

Research findings show that aggressive children do appear to have both low and high self-esteem (Diamantopoulou, Rydell, & Henricsson, 2008). It has been suggested that some

aggressive children exaggerate their own self-worth to make themselves feel better. Exaggerated self-esteem is compared to global self-worth; which is defined as specific self-perceptions of competence. In one study, it was found that only low levels of global self-worth and exaggerated but disputed (e.g. peers disagreed with the child's self-esteem level) self-esteem were related to aggression (Diamantopoulou et al., 2008). In the same study, it was found that the levels of aggression in boys were highest when they held exaggerated self-esteem. This may help explain why some children who are aggressive in nature do not always hold low self-esteem and how the results of these actions do not always have bad consequences (Diamantopoulou et al., 2008).

An interesting cognitive function some aggressive children tend to exhibit is called Positive Illusory Bias and this happens when children hold an unrealistically favourable attitude towards themselves. There is evidence from previous findings that when children have positively biased social self-perceptions then they tend to be more aggressive towards others compared to children who hold a more realistic self-perception. This finding does predict that positive illusory bias is a causal risk for aggressive behaviour found in children (Lynch et al, 2016).

In another study on levels of social self-esteem, there was found to be a significant difference between aggressive popular and aggressive rejected adolescents (Esteveza et al, 2014). It was found that aggressive rejected adolescents had lower self-esteem, which supports previous research findings that having fewer friends can lead to greater loneliness (Esteveza et al, 2014). However, it is important to note the outcomes children face may also depend on the context and experience of the child or adolescent and therefore may not always result in negative outcomes for aggressive children.

Aggressive Behaviour and Depression

Another adjustment outcome some aggressive children experience is depression (Troop-Gordon & Ranney, 2014). Like other theories in child development, context is an important factor when discussing implications of aggressive behaviour. Aggressive children may be under stress because of their use of higher amounts of overt and relational behaviour when interacting with their peers. One study discusses the tradition stress-exposure model which states that depression is a reaction to stress and therefore aggressive children would be subjected to higher levels of stress (Rudolph et al, 2000). Depressed children may also act aggressively because of frustration and sadness. Troubles at home may explain children's behaviours and they may act aggressively in response to their situation. However, it is possible that some children are protected from depressive symptoms, given that popular youth experience anxiety and depressive symptoms at lower levels (or comparable levels) than youth with average social standing (Troop-Gordon & Ranney, 2014). Less peer victimization, increased number of friends and heighted social self-esteem helped with dimensions of depression (Troop-Gordon & Ranney, 2014). Thus, positive interpersonal ties may diminish the typical stress response of aggressive children.

Aggression and Status

One key aspect to determining outcomes for aggressive children may lie in their social relationships (Ellis, & Zarbatany, 2007b). Overt and relationally aggressive children typically have friends, and they can be known as having positive friendships and be central members of peer groups (Dijkstra et al, 2009). Friendships and peer group relationships can offer a sense of belongingness and a training ground for interpersonal skills and thus play an integral role in long-term adjustment. In previous research, having a high-status position holds benefits such as prestige, power, social and material benefits (Dawes & Xies,2014).

A leading factor for some positive outcomes in aggressive children is the interaction of status within their social groups. Peer acceptance reflects social acceptance and acceptance among peers has been found to be a key predictor of psychosocial adjustment and academic success (Esteveza et al., 2014). In contrast to peer acceptance, popularity status means children are highly visible by others. Popular children may end up with resources, such as high social impact and peer support which gives them an advantage in areas such as social attack, (Dawes & Xie, 2014). A subset of aggressive children are perceived as popular by their peers (Closson, 2009), and may be highly skilled social controllers (Dawes & Xie, 2014). Having popularity means that an individual has high status within their peer network and others can recognize their popularity as well.

Popularity is a complex phenomenon because both positive aspects of prosocial behaviour and negative aspects of aggression are implicated (Card & Little, 2006). Even though aggression can be tied to maladjustment, popular aggressors seem to be well adjusted, for example, they may be athletic, socially central and prominent and involved in many extracurricular activities (Rose & Swenson, 2009). Because popular students must be socially skilled, they may use relational aggression with others. It has been found that peers may also forgive the negative behaviour of aggression when they are also high status (Rose & Waller, 2004). In regards to the present study, popular aggressors may not face negative consequences because their manipulative actions may go unnoticed and such behavior may be difficult to change (Rose & Swenson, 2009). When aggression is used for boosts in popularity, children may use this strategy in a calculated way and they also could become increasingly aggressive if peers continue to stand down with little consequence (Rose & Waller, 2004). Previous studies have found significant relations between popularity and rich social networks, the results indicate that

positive social evaluations may ensue for high status individuals even when it coexists with aggressive behaviour (Esteveza, Emlerb, Cavac, Candido, & Inglesa, 2014). Motivation to conform and pressure from group members may be strongest for high status groups because of the more benefits they possess (Ellis, & Zarbatany, 2007a).

Previous research has not supported as strong of a relationship between overt aggression and popularity as it has between relational aggression and popularity. It has been shown that children who use relational aggression rather than overt aggression seem to have a unique positive interaction with popularity (Rose & Waller, 2004). These children seem to use a distinct, manipulative way of interacting with their peers and this works for them with many benefits including high status. The sanctions for overt aggression may jeopardize children's status, although this may depend on the larger norms of such behavior (Stormshak et al., 1999). Relational and overt aggression can overlap in some children so it is important to evaluate the context of the behaviours and how popularity may be able to protect either type of aggression.

Popularity can help protect children from negative peer treatment and intensify the child's sense of social self-efficacy. As children learn to integrate themselves with popular peers this can help with increasing their own status which has been found to boost self-esteem, influence others, increase self-efficacy, improve self-enhancing feedback and decrease peer victimization levels (Troop-Gordon & Ranney, 2014).

Aggression and Peer Rejection

Rejection faced by aggressive children has a more negative outlook than what popular children experience. It has been found that social rejection is associated with many aspects of maladjustment including; anxiety, depressive symptoms, feelings of loneliness, low satisfaction

of life and stress (Esteveza, Emlerb, Cavac, Candido, & Inglesa, 2014). It has been found that rejected children who find acceptance in groups may become motivated to conform to norms within these groups so that they can avoid becoming isolated again (Ellis, & Zarbatany, 2007b). This may explain why some aggressive children continue to use aggression, if aggression is helping them become less rejected.

Some studies have found that children with behaviour difficulties are less accepted in their classrooms and this can lead to having less friends (Kamper & Ostrov, 2009). There does seem to be a gender difference in regards to relational aggression and not overt aggression. It has been found that boys who are relationally aggressive were most likely to be average in social status whereas girls who were relationally aggressive were most likely to be rejected by peers (Henington, 1996). Recently researchers have observed that rejected adolescents and children are not a homogeneous group, instead some youngsters display aggressive behaviour whereas others show passivity with no behaviour problems (Esteveza, Emlerb, Cavac, Candido, & Inglesa, 2014).

Some research supports the idea that children with overt aggression may be rejected because of the physical side to the behavior (Kamper & Ostrov, 2009). This physical nature of aggression, which leads to more rejection may be detrimental to some children. In one study, it was found that overt aggression alone predicted subsequent peer rejection (Tseng, Banny, Kawabata, Crick, & Gau, 2013). This is important to note as it shows that overt aggression is related to rejection in children.

Aggression and Stability within Peer Groups

Having friends has been shown to be a protective factor, especially having peer acceptance within these friendship groups, and this is associated with a lowered risk of being bullied (Wei & Jonson-Reid, 2011). In the current study, it is important then to investigate the effects of aggressive behaviour within friendships, to determine when features of friendship can protect the effects of aggressive behavior.

Stability within friendships is an important factor to consider when viewing aggressive behaviour and popularity characteristics. Stability within friendships is important for children and may be linked to aspects of positive adjustment. It has been found that half of children with close friendships experience stability throughout the school year (Ellis, & Zarbatany, 2007b). Results show that overtly aggressive children have difficulty maintaining friendships regardless of their friends' aggression. Consequences for relational aggression has different results, relationally aggressive children do not hold the same negative results (Ellis, & Zarbatany, 2007b). It has also been found that children who display relational aggression in parallel with their own friends do not have stability within these friendships, most likely since relational aggressive children may produce mixed feelings within the peer group especially when battling another relationally aggressive friend (Ellis, & Zarbatany, 2007b). The interactions between relational and overt aggression may overlap as the two types of aggression can be displayed in the same child.

Another important factor when discussing children's stable friendships is the fact that children's stability within friendships improves when children share similar characteristics and this can add to the discussion that not all characteristics within these friendships are adaptive (Ellis, & Zarbatany, 2007b). There are many skills needed to maintain these relationships and once children do make friends they will need to develop these skills to become successful. This

can lead to annoying or inappropriate behaviour sometimes found in aggressive children (Ellis, & Zarbatany, 2007a). Children who use relational and overt aggression can have both advantages and disadvantages depending on the context of the relationship. Nevertheless, stable peer relationships may offer aggressive children an advantage for long-term adjustment.

The Current Study

Given the important role of popularity and status for aggressive children, the purpose of this study will be to investigate moderators of the relationship between aggressive behaviour and the adjustment outcomes of physical health, self-esteem and depression considered. Popularity, rejection or stability could moderate the relationship between aggression and adjustment. This study hypothesizes that children who are high in popularity, low in rejection or high in stability will have better adjustment outcomes in the areas under consideration (physical health, self-esteem) and depressed children who are popular and use aggression will have slightly better outcomes compared to unpopular children. In contrast, it is expected that rejected children will experience worse adjustment outcomes when using aggression. Furthermore, the idea that stability in peer groups would lead to better outcomes in aggressive children will be explored. Aggression may be related to better outcomes for some children depending on the popularity status, level of rejection as well as group dynamics such as stability. Given the commonly observed gender differences in the use of relational and physical aggression (Rose & Waller, 2004), this study will also examine the role of gender in the possible moderating relationships.

These factors are important when discussing aggression because children in different contexts are found to have different outcomes. Outcomes are not always negative and protective factors may exist for aggressive children. In previous research, there has been much focus on overtly aggressive children and the outcomes of this behaviour. Relational aggression has also

been consider more recently, often with mixed results.(Rose & Waller, 2004). In this study, measures of both types of aggression will be included and the overlap between them will be considered .

Another limitation in previous research is the investigation of the emotional well-being of popular aggressors (Rose & Swenson, 2009). The well-being of aggressors can sometimes be overlooked because of the negative outlook these children portray in their interactions with others. This study will contribute to the literature by expanding on important factors that are correlated to aspects of children's well-being, especially in regards to physical health, self-esteem and depression.

Method

Participants

Participants were 1,033 students (444 boys, 589 girls) in Grades 4 through 8 in seven K-8 (kindergarten to Grade 8) elementary schools (5 public, 2 Catholic), and one public school for the performing arts (Grades 4 to 8 inclusive) in Southwestern Ontario. Three schools were in small towns or cities, and five schools were from a mid-sized city. The students ranged in age from 7.94 to 14.66 in the fall (Mage = 11.81, SD = 1.53). The majority (66.6%) of students were European-Canadian, and the remaining students were Asian-Canadian (8.5%), Hispanic-Canadian (3.4%), other ethnicities represented at less than 2% each (African-Canadian, Arab Canadian, East Indian-Canadian, First Nations), or unspecified or missing ethnicity (16%). Students lived with biological mother and father (74%), mother only (10.6%), or mother and stepfather (8.4%). Based on Statistics Canada (2010) census data for the school catchment areas, the socioeconomic status of the sample ranged from lower to upper-middle class, with the

majority in the low to middle range. All students from the 52 classes in Grades 4 through 8 in the participating schools were invited to take part in the study. Overall, 76.1% students received parental consent and assented to participate (range = 35% to 100% per classroom). Participation rates were lower than 60% in only 7 classes. No data are available regarding characteristics of non-participants.

Compassion of students who were missing data at Time 2 to students with both data points revealed that participants with both data points were older, $F (1, 1021) = 5.06$, $p = .025$, but only one difference was found for gender, $\chi 2 = .037$, ns., depression $F (1, 1021) = >.001$, or aggression $F (1, 1021) = .004$, ns.

Measures

Aggression. A modified Revised Class Play (Masten, Morison, & Pelligrini, 1985) was used to obtain scores for overt and relational aggression. From lists of participating classmates, children were asked to nominate up to three peers who best fit each behavioral description. Scores on two relational aggression items ("tries to keep certain people from being in his/her group during activities or playtime; says mean things or spreads rumors about other kids when he/she is mad at them;" Crick & Grotpeter, 1995) and three overt aggression items ("gets into a lot of fights; picks on others; teases other people too much") were combined to form a single aggression score due to a high correlation between subscale scores ($r = .76$). The number of nominations each child received for each item was summed and standardized within classrooms; item scores within each construct were then averaged and restandardized.

Sociometric Status. The status of student's popularity was measured using the Revised Class Play Method (Masten, Morison, & Pellegrini, 1985). These measures were calculated to

determine the status of each student as either: Popular, Well-liked or Rejected. The question to measure well-liked ("A person you really like to be with at school"), rejected ("A person you would rather not be with at school") and popular ("Someone who is popular") helped to categorize the different status of students. The number of nominations each child received for each item was summed and standardized within classrooms. Rejected scores were subtracted from well-liked scores to give a final score for rejection.

Daily Physical Health. A modified version of day-to-day physical symptoms (Larsen & Kasimatis, 1991) was used to measure the physical health levels of children to further investigate the physical health of each student. The scale has 14 items. The child needs to pick the number between 0 to 4 that applies to them the most, 0 (being "Never") and 4 (being "Very Often"). Examples of physical health questions would include: "Headaches" or "Not hungry". The reliability score for the physical health scale was r = .85.

Self-Esteem. A self-report was used (Salmivalli, Kaukianinen, Kaistaniemi, & Lageerspetz, 1999) to measure self-evaluated self-esteem of the students. The scale has 5 items and the answers are in range from 1 to 5. The child needs to pick the best answer for them from 1 (being "Not at all true") to 5 (being "Always true"). An example of questions would include: “I am happy with myself as a person” and “I am happy with the way I do a lot of things”. The reliability score for the self-esteem scale was r = .84.

Children’s Depression Inventory (CDI). A modified version of the Children's Depression Inventory (Kovas, 1992) was used to measure Children's Depression scores. This scale had 13 items in total. In each item there are three responses and the child is asked to pick one answer out of the three that best describe their feelings. An example would include: "I am

sad once in a while" or "I am sad many times" and last "I am sad all the time". The reliability score for the depression scale was r = .87.

Peer group stability. Group stability was scored as the proportion of original members who retained group membership in the spring. Individual stability was scored in dichotomous (0-1) format as a continuing or non-continuing clique membership based on the spring SCM assessment.

Group Identification: The Social Cognitive Map

The Social Cognitive Map procedure (SCM; Cairns, Gariepy, Kindermann, & Leung, 1988) is a well-established procedure for identifying peer groups at school. Using free recall, students were asked to write the names of their own peer group members and other peer groups within their school. This method of network assessment has the advantage that connections can be identified among participants who themselves do not give information about their own clique (as long as they are well-known by others). By definition, groups consist of at least three members, so students who were social isolates or members only of dyads were not included in the study (n = 34).

At Time 1, the SCM procedure identified 999 (96.71%) students (425 boys and 574 girls) in 162 peer groups ranging in size from 3 to 17 members (M = 6.19 members, SD = 2.80). The same procedure for identifying groups was used at Time 2, and indicated that 76% of the sample remained in the same group from fall to spring.

Procedure

The study was approved by King's University Ethics Review Committee. Data were collected during the 2008-2009 school year. Research assistants visited the students in their

classrooms two times, once during the fall of 2008 and again during the spring of 2009. The assistant explained the study to each classroom and offered a pizza party as incentive to return consent forms. The students needed to return their consent forms to receive the pizza parties and this did not matter whether they participated or not.

Participating students completed the first administration of survey measures from mid-October to early-December. The participants completed several questionnaires, including some not included in the present study. Students completed the surveys in 2-hour sessions in their classrooms broken by a 10-min break. Questionnaires were given in the same order for both administrations; the survey package contained the questionnaires reported herein, as well as several additional questionnaires not included in the present study. One or two research assistants were available throughout the session to help with reading difficulties and answer questions. All items were read aloud for children in Grades 4 and 5, whereas older children completed the survey at their own pace after receiving general instructions.

The order of the completed survey are as follows: revised children's play (to determine relational/overt aggression level, popularity and rejection), social cognitive map (to assess different peer groups within participants) followed by surveys measuring depression, self-esteem and physical health.

Once the participants had completed their surveys then the research assistants spoke to the students and explained if the surveys brought up any negative emotions for them that they could talk to the teacher and they could refer them for some help. They explained to the students that the information inside the surveys were kept confidential. At the end of the academic year, children who completed at least one portion of the study received a $10.00 gift certificate, and participating schools received a $500.00 honorarium.

Results

Preliminary Analysis

First, the relationship between relational and overt aggression scores were examined. The correlation between self-esteem and relational aggression was r = -.104 and for overt aggression the score was r = -.143 and both values were statistically significant. The correlation between physical health and relational aggression is r = .072 and for overt aggression is r = .062 and both values were statistically significant. The correlation between the depression variable for relational aggression is r = .085 and overt aggression is r = .091 and both scores were statistically significant. Relational aggression and overt aggression were highly correlated r = .76 (Table 1). The scores for the two forms of aggression significantly overlapped in our initial analysis and were therefore combined in all further analysis. Refer to Table 1 for correlations.

Next, correlations were computed among the outcome variables of interest (physical health, self-esteem and depression), aggression and the three-predicted moderating (popularity, rejection and stability) variables and can be found in Table 2. Results indicate there are nine correlations that are positively and significantly related and seven correlations that are negatively and significantly related. Aggression was significantly, positively related to both depression and popularity, showing that when aggression levels increase both popularity and depression increase. Aggression is negatively, significantly related to self-esteem which shows that when aggression increases, self-esteem decreases. Aggression was not related to physical health concerns. Aggression was strongly, positively related to rejection, such that when rejection increases then aggression increases. Aggression was not related to stability. Stability was positively and significantly related to popularity, which shows that when stability increases so does popularity. Rejection was positively, significantly related to both depression and physical health and this

shows that when rejection increases so does both depression and physical health. Rejection was negatively, significantly related to self-esteem and popularity which shows that when rejection increases both self-esteem and popularity decrease. Popularity was positively, significantly related to self-esteem such that when popularity increases so does self-esteem. Popularity was negatively significantly related to depression such that when popularity increases then depression decreases. Popularity had no relation with physical health.

Self-esteem is strongly and negatively related to depression and physical health such that when self-esteem increases both depression and physical health decrease. Physical health is positively, strongly related to depression, such that when physical health concerns increase then depression increases as well.

Age and Gender difference

To test for age and gender differences in outcome variables, a 4(grade) x 2(sex) analysis of variance (MANOVA) was conducted to see if any differences from between physical health, self-esteem or depression. There was only one statistically significant result between sex and the depression outcome F (5, 986) = 153.83, p <.05. Females (M = 1.57, SD = .50) were found to have higher depressions scores compared to male participants. No other gender differences were found in any analysis.

Analytic Plan

Nine multiple regressions were conducted to determine whether aggression from peer reports predicted higher self-esteem, higher physical health symptoms and lower depression. Three multiple regressions were conducted to see if popularity moderated the relationship between self-esteem, physical health and depression. Three more multiple regressions were

Table 1

Correlation between Relational and Overt Aggression Scores and the three outcome variables of Self-Esteem, Physical Health and Depression.

		1	2	3	4	5
1.	Relational Aggression at Time 1	--				
2.	Overt Aggression at Time 2	.76**	--			
3.	Physical Health at Time 2	.07*	.06*	--		
4.	Self-Esteem at Time 2	-.10**	-.14**	-.34**	--	
5.	Depression at Time 2	.09**	.09**	.48**	-.62**	--

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

Table 2

Correlation between Physical Health, Self-Esteem and Depression at Time 2 with Popularity at Time 1 and Rejection, Stability and Aggression Scores.

		1	2	3	4	5	6	7
1.	Physical Health at Time 2	--						
2.	Self-Esteem at Time 2	-34**	--					
3.	Depression at Time 2	.48**	-.62**	--				
4.	Popularity Moderator	-.03	.09**	-.13**	--			
5.	Rejection Moderator	.08*	-.19**	.23**	-.27**	--		
6.	Stability Moderator	.03	.01	-.06	.10**	-.14	--	
7.	Aggression at Time 1	.07*	-.14*	.10**	.25**	.45**	.00	--

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

completed to see if stability moderated the relationship between the same variables. The last three multiple regressions were testing to see if rejection moderated the relationship between physical health, self-esteem and depression.

To test for moderation, variables were centered and interaction terms created between aggression and popularity, aggression and stability, and aggression and rejection. Gender and grade interactions were also created between aggression and gender and aggression and age. Regressions for the predictor variables were entered in three blocks; (a) gender, age and specific variable of interest at time 1 (self-esteem, physical health or depression) (b) aggression and popularity/stability or rejection, (c) two-way moderating interactions and age and gender interactions. A total of nine regressions were used: three for each outcome variable. All variables were centered and significant interactions were analyzed per the guidelines outlined by Aiken and West (1991). For significant interactions, simple slopes were tested following the procedures outlined by Preacher, Currran and Bauer (2006). To decipher the overall pattern of each interaction, separate regression lines were computed and plotted for individuals one standard deviation above (+1 SD) and one standard deviation below (–1 SD) the mean of the predictor.

Hypothesis Testing

Aggression and Popularity Predicting Physical Health.

The first regression was conducted to examine if aggression and popularity from peer-reports moderated the outcome variable of physical health while controlling for age and sex differences, and time 1 scores. This model was significant, F (6, 969) = 95.64, p < .001. and accounted for 37.3% of the variance in aggression. Table 3 (regression 1) illustrates the three regressions and shows the beta's, standard error, t-scores and level of significance. There was

found to be only one significant result using this model. Physical health at Time 1 predicted the student's Physical Health at Time 2, which holds support for the idea that physical health concerns are more stable over the school year. This does not support our hypothesis that popularity would moderate the relationship between aggression and negative physical health scores.

Aggression and Stability Predicting Physical Health.

A second regression was conducted to examine if aggression and stability moderated the outcome variable of physical health while controlling for age and sex differences, and time 1 scores. This model was significant, F (6, 969) = 95.99, p =.001. and accounted for 37.4% of the variance in aggression. Table 3 (regression 2) illustrates beta's, standard error, t-scores and level of significance for each variable in the equation. There was found to be only one significant variable using this model. As noted above, physical health at Time 1 predicted the student's Physical Health at Time 2.

Aggression and Rejection Predicting Physical Health.

A third regression was conducted to examine if aggression and rejection moderated the outcome variable of physical health while controlling for age and sex differences and time 1 scores. This model was significant, F (6, 969) = 95.35, p =.002. and accounted for 37.5% of the variance in aggression. Table 3 (regression 3) shows the beta's, standard error, t-scores and level of significance for each variable. There was found to be only one significant result using this model as stated above, this does not support our hypothesis that rejection would negatively impact physical health scores.

Table 3

Regression Analysis Predicting Physical Health Outcome from Moderating Variables of Popularity, Stability and Rejection

Step and Variable	Beta	SE	*t*
Regression 1: Popularity on Physical Health			
1. Age	-.04	.01	-1.45
Sex	.02	.03	. 90
Physical Health Time 1	.61	.03	23.62**
2. Aggression	.04	.00	1.59
Popularity	-.01	.02	-.43
3. Popularity X Aggression	-.01	.02	-.46
Regression 2: Stability on Physical Health			
1. Age	-.04	.01	-1.45
Sex	.02	.03	.90
Physical Health Time 1	.61	.03	23.62**
2. Aggression	.04	.00	1.54
Stability	.02	.04	.82
3. Stability X Aggression	-.03	.01	-1.02
Regression 3: Rejection on Physical Health			
1. Age	-.04	.01	-1.45
Sex	.02	.03	.90
Physical Health Time 1	.61	.03	23.62**
2. Aggression	.04	.01	1.25
Rejection	.01	.02	.29
3. Rejection X Aggression	-.05	.01	-1.73

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

Aggression and Popularity Predicting Self-Esteem

A fourth regression was conducted to examine if aggression and popularity from peer-reports moderated the outcome variable of self-esteem while controlling for age and sex differences and time 1 self-esteem. This model was significant, F (6, 966) = 75.54, p <.001 and accounted for 32.1% of the variance in aggression. Table 4 (regression 1) illustrates the results shows the beta's, standard error, t-scores and level of significance for each variable. There was found to be a significant negative prediction of aggression on self-esteem, such that when aggression is higher, self-esteem is lower. There was found to be significant positive prediction of self-esteem at time 1 on self-esteem at time 2, which shows that self-esteem is a stable over time. The interaction term in the model of popularity and aggression is also significant, which shows that aggression and popularity do moderate the outcome variable of self-esteem.

The interaction between aggression and popularity on self-esteem scores are shown in Figure 1. This graph shows that when a student presents with both high aggression and high popularity they have highest self-esteem scores. It also shows that when a student presents with low popularity and high aggression that the student has lower self-esteem scores. This helps provide support for our hypothesis that popularity moderates the relationship between aggression and self-esteem.

Aggression and Stability Predicting Self-Esteem.

A fifth regression was conducted to examine if aggression and stability moderated the outcome variable of self-esteem while controlling for age and sex differences and time 1 scores for self-esteem. This model was significant, F (6, 966) = 73.70, p <.001 and accounted for 31.5% of the variance in aggression. Table 4 (regression 2) illustrates the beta's, standard error,

t-scores and level of significance for each variable in the equation. Aggression was found to predict self-esteem at Time 2, such that when aggression is high then self-esteem will be lower. Self-Esteem at Time 1 predicted the student's Self-Esteem which shows that self-esteem is a stable. There was found to be no other significant relationships between variables. The aggression variable is important for this model but did not support my hypothesis of stability as a moderating variable in this equation.

Aggression and Rejection Predicting Self-Esteem.

A sixth regression was conducted to examine if aggression and rejection from peer-reports moderated the outcome variable of self-esteem while controlling for age and sex differences. This model was significant, F (6, 966) = 74.92, p =.001 and accounted for 31.9% of the variance in aggression. Table 4 (regression 3) illustrates regression and shows the beta's, standard error, t-scores and level of significance. There was found to be a significant negative prediction of aggression on self-esteem, such as when aggression is higher than self-esteem is found to be lower. As above, there was found to be significant positive prediction of self-esteem at time 1 on self-esteem at time 2. The relationship between rejection and self-esteem is also negative and significant, which shows that when rejection is high, self-esteem is lower. The interaction term was found to not be significant. This does not fully support my hypothesis

Table 4

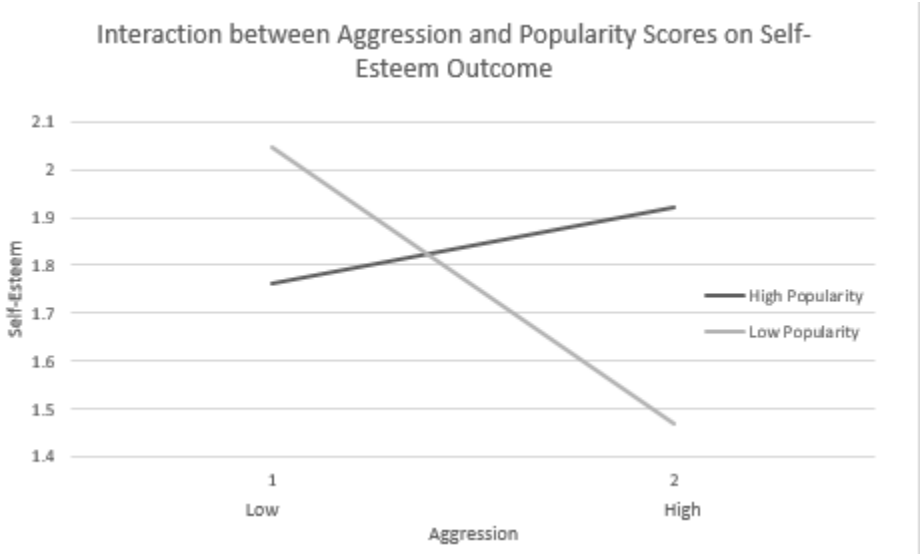
Regression Analysis Predicting Self-Esteem Outcome using Moderating Variables of Popularity, Stability and Rejection.

	Step and Variable	Beta	SE	*t*
	Regression 1: Popularity on Self-Esteem			
1.	Age	-.05	.01	-1.73
	Sex	.00	.04	.16
	Self-Esteem Time 1	.54	.03	20.18**
2.	Aggression	-.13	.01	-4.53**
	Popularity	.05	.02	1.87
3.	Popularity X Aggression	.07	.02	2.43*
	Regression 2: Stability on Self-Esteem			
1.	Age	-.05	.01	-1.73
	Sex	.00	.04	.16
	Self-Esteem Time 1	.54	.03	20.19**
2.	Aggression	-.11	.01	-4.17**
	Stability	.03	.05	1.21
3.	Stability X Aggression	.02	.01	.61
	Regression 3: Rejection on Self-Esteem			
1.	Age	-.05	.01	-1.73
	Sex	.00	.04	.16
	Self-Esteem Time 1	.54	.03	20.18**
2.	Aggression	-.08	.01	-2.70*
	Rejection	-.07	.03	-2.40*
3.	Rejection X Aggression	-.04	.02	-1.10

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

Figure 1

Interaction Between Aggression and Popularity Scores on Self-Esteem Outcome



Aggression and Popularity Predicting Depression

A seventh regression was conducted to examine if aggression and popularity moderated the outcome variable of depression while controlling for age and sex differences. This model was significant, F (6, 986) = 130.22, p =.004 and accounted for 44.4% of the variance in aggression. Table 5 (regression 1) shows the beta's, standard error, t-scores and level of significance. Aggression was found to predict Depression scores at Time 2, such that when aggression is higher than depression scores are higher. Depression at Time 1 predicted the student's depression at Time 2, which shows that children did not improve in depression scores over the school year. The interaction of popularity and aggression is significant for depression, which shows that popularity and aggressive behaviour are moderating the outcome of depression in children. This finding does support my hypothesis that popularity moderates the relationships between aggressive behaviour and depression in children.

The interaction between aggression and popularity on depression scores are shown in Figure 2. This graph shows that when a student presents with both high aggression and high popularity they have lower depression scores. It also shows that when a student presents with low popularity and high aggression that the student has higher depression scores. This helps provide evidence for our hypothesis that popularity moderates the relationship between aggressive behaviour and depression.

Aggression and Stability Predicting Depression

An eighth regression was conducted to examine if aggression and stability moderated the outcome variable of depression while controlling for age and sex differences. This model was significant, F (6, 986) = 128.39, p =.002 and accounted for 44% of the variance in aggression.

Table 5 (regression 2) illustrates the three regressions and shows the beta's, standard error, t-scores and level of significance. Aggression was found to predict depression scores at Time 2, which shows the higher depressed a child is then the higher the aggression scores. Depression at Time 1 predicted the student's depression at Time 2, such that the depression outcome is a stable characteristic. Stability within friendships is not a moderator for depression.

Aggression and Rejection Predicting Depression

A ninth regression was conducted to examine if aggression and rejection moderated the outcome variable of depression while controlling for age and sex differences. This model was significant, F (6, 986) = 131.04, p =.001 and accounted for 44.5% of the variance in aggression. Table 5 (regression 3) illustrates the three regressions and shows the beta's, standard error, t-scores and level of significance. Rejection was found to predict depression scores at Time 2, which shows that the higher the rejection scores, the higher the depression. Depression at Time 1 predicted the student's depression at Time 2, such that depression is a stable characteristic over the school year. There were no other significant relationships between variables. This regression concludes that rejection is an important variable but this does not fully support my hypothesis.

Table 5

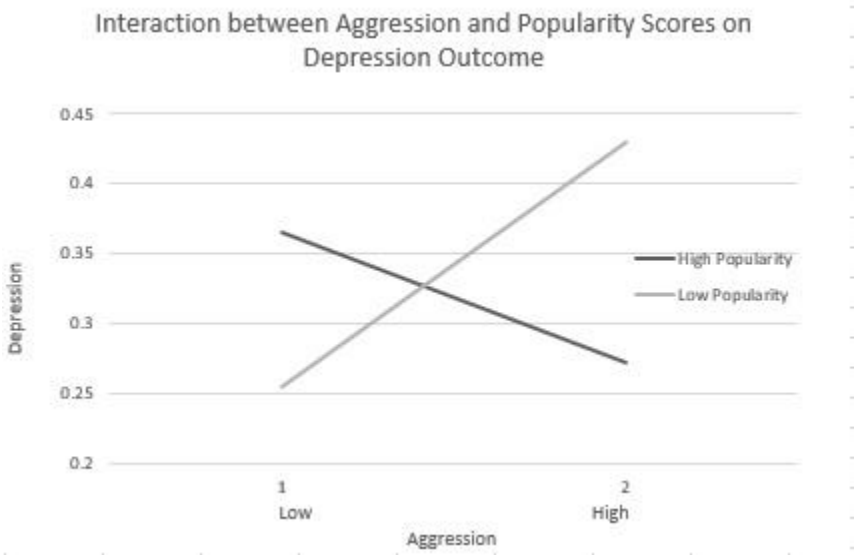
Regression Analysis Predicting Depression Outcome using Moderating Variables of Popularity, Stability and Rejection.

	Step and Variable	Beta	SE	*t*
	Regression 1: Popularity on Depression			
1.	Age	-.02	.01	-.64
	Sex	.04	.02	1.55
	Depression Time 1	.66	.03	27.28**
2.	Aggression	.06	.00	2.43*
	Popularity	.04	.01	-1.44
3.	Popularity X Aggression	-.07	.01	-2.70*
	Regression 2: Stability on Depression			
1.	Age	-.02	.01	-.64
	Sex	.04	.02	1.55
	Depression Time 1	.66	.03	27.28**
2.	Aggression	.05	.00	2.10*
	Stability	-.02	.02	-.65
3.	Stability X Aggression	-.04	.00	-1.67
	Regression 3: Rejection on Depression			
1.	Age	-.02	.01	-.64
	Sex	.04	.02	1.55
	Depression Time 1	.66	.03	27.28**
2.	Aggression	.02	.00	.58
	Rejection	.09	.01	3.09*
3.	Rejection X Aggression	.05	.01	1.59

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

Figure 2

Interaction Between Aggression and Popularity Scores on Depression Outcome



Discussion

Main Findings

Aggression in children has been found to have a negative impact on children's internalizing and externalizing behaviours (Lynch, Kistner, Stephens, & David-Ferdon, 2016). Some of these internalizing behaviours include decreased self-esteem and increased depression. Although aggression has been found to negatively impact children, it does not always lead to difficulties (Card & Little, 2006). In previous research, popularity has been found to moderate the effects of the negative outcomes found in aggressive children (Esteveza et al., 2014). It was hypothesized that popularity, rejection and stability would moderate the relationship between the outcome variables in this study; physical health, self-esteem and depression and aggression. Relational and overt aggression have been found to significantly overlap in our study ($r = .76$) and we were able to combine into one aggression score. Aggression was significantly predictive of lower self-esteem and higher depression but unrelated to physical health. Our findings partially supported our hypothesis, indicating that popularity was found to moderate relationships between aggressive behaviour and self-esteem and depression outcomes for children. Peer rejection was related to both self-esteem and depression but did not moderate either relationship. Stability was not a significant predictor or moderator in this study

The relationship between Aggression, Physical Health and the Moderating Variables

Results from the correlations revealed there was no relationship between physical health and popularity or stability. Physical health was negatively correlated with self-esteem and positively correlated depression. Physical health was also positively correlated with aggression and rejection. Results are consistent with previous research that shows the connection between

physical health concerns and both self-esteem and depression levels in children, such that when physical health is comprised then self-esteem is lower and depression scores are higher (Rhee, 2003). Rejection is related to physical health, because of the link between physical health complaints when children are rejected from their peers (Cox, 1995). Children show much better outcomes when they are not rejected by their peers. In one study, it was found that children who are rejected by their peers do suffer from more stress which in turn weakens children's immune systems, thus these children are at higher risk for physical health problems and there is an even higher risk for females (Brendgen, & Vitaro, 2008).

Results from the regressions show that physical health is not significantly related to any of the variables in this study except for showing the significant relationship between physical health from Time 1 and Time 2 scores. This shows that physical health concerns were stable over the course of the school year. It was interesting that in the correlations physical health was significantly correlated with aggression and rejection but the regressions did not find such relationship. This may be explained by multicollinearity, which could account for having time 1 physical health scores in the analysis and this may explain the changes found in the model.

The relationship between Aggression, Self-Esteem and Moderating Variables

Results from the correlations revealed that self-esteem was related to all variables except for stability within peer groups. Self-esteem is negatively correlated with physical health, aggression, rejection and depression, and positively correlated with popularity. Previous research does not have consistent findings in regards to self-esteem. Some aggressive children have higher self-esteem and some are found to have lower self-esteem (Diamantopoulou, Rydell, & Henricsson, 2008). Popular children are not necessarily well-liked but they do hold power within their relationships and this power may help increase the child's level of self-esteem (Dawes &

Xies, 2014). Highly aggressive children can also have low self-esteem (Diamantopoulou et al, 2008). These two studies found differing results, which shows the complexity of aggression and self-esteem in children.

Results from the regressions show that aggression significantly, negatively, predicts self-esteem. Importantly, the interaction between popularity and aggression was also significant, indicating that popularity moderated the relationship. This moderating relationship, showed that children with the highest levels of aggression and popularity had higher self-esteem. This happens when popular children hold prestige and power and this helps protect children from the negative outcomes of aggression. Previous research has also found that being aggressive and popular moderates the self-esteem outcome in the relationship, such that when children are aggressive (which normally leads to negative outcomes) that they may have their self-esteem protected (Esteveza et al, 2014). It has been found that being popular does seem to increase children's self-esteem levels (De Bruyn, & Van, 2005). This significant interaction shows that popularity is an asset for aggressive children in regards to self-esteem specifically. It has also been found that children with low self-esteem and low popularity are at higher risk for social exclusion (Tobia, Riva, & Caprin, 2016). This explains that popularity plays an important role for many aspects in children's lives, including protecting social exclusion which is known for producing negative outcomes.

Rejection was also significantly related to self-esteem showing that when rejection scores are higher, then self-esteem scores are lower. Rejection and lower self-esteem scores has been found in previous research as rejection leads to having fewer friends and higher loneliness, which in turn effects self-esteem levels in children (Esteveza et al, 2014).

The relationship between Aggression, Depression and Moderating Variables

Results revealed that depression was correlated with the other outcome variables as well as positively associated with rejection, positively associated with aggression and negatively associated with popularity. Depression was found to be positively correlated with physical health and negatively associated with self-esteem. Previous research does appear to support our findings, such that depressed children may be at higher risk for lower self-esteem (Vargo, 2009). Although some findings disagree (Baldry, 2004), there are some significant relationships documented between physical health and depression. It has been found that children who were involved or participated in aggressions have consequences that range from physical health complaints to depression and anxiety (Rigby, 1998). Depression and physical health symptoms do go hand-in-hand as are both known to affect each other.

Results from the multiple regressions showed that depression was significantly related to popularity and aggression. The interaction term between popularity and aggression was also significant for depression. This interaction explains the importance of popularity moderating the effects of aggression on depression in children. The more popular the child is, the more protected they are from the effects of aggression on depression. It has been found in other studies that popularity does buffer depressive symptoms when comparing these popular, aggressive students to students with average social status (Troop-Gordon & Ranney, 2014). Popularity is an important factor in determining negative depressive outcomes found in children who are aggressive, especially given that depression effects children's friendships and relationships (Nangle, Erdley, Newman, Mason, Carpenter. 2003).

A significant association between rejection and depression was also found. Rejection and aggression are both predictive of increased depression scores in children, because of the poor outcomes associated with rejected, aggressive children. As shown in the literature, rejection has

many negative outcomes for children including somatic symptoms and depression (Esteveza, et al., 2014). The more rejected some children feel, the more they will act out physically towards their peers and this can result in being even more rejected. Not all aggressive children are perceived as popular and these children are at higher risk for negative outcomes.

The Moderating Role of Popularity and General Conclusions

Popularity was found to have the most interesting and robust findings in the present study. Popularity is the moderator explaining the relationship between aggression scores and self-esteem and aggression scores and depression. Popularity was not found to moderate the relationship between aggressive behaviour and physical health.

Popularity has been linked to aggressive behaviour in many studies, showing the importance of these two factors. It has been found that aggressive behaviour leads to perceived popularity over time for children (Ahn, 2012). This shows that aggression and popularity are inter-related variables. In the present study, popularity buffers the negative effects of aggressive behaviour in children. The benefits created from popularity include visibility, power and access to resources. Popular children are leaders and all these factors allow them to be in the spotlight. It can be understood that because of the power popular children hold in their relationships that some popular children may have increased self-esteem and decreased depression. Being popular may improve the aggressive child's circumstances and may negate poor outcomes.

The present study allows for several conclusions to be made based on the findings. First, aggression remains an important factor in regards to investigating outcomes for children. Aggression was found to be negatively related to self-esteem and positively associated with depression scores in our study. Next, popularity is an important consideration when examining

adjustment outcomes for aggressive children. For example, if a child is both aggressive and popular this helps protect against depression levels and lowered self-esteem levels. This relationship between popularity and aggression may act as a barrier for negative outcomes in children. Therefore, it is critical to understand how important popularity is for aggressive children within this dynamic relationship.

Practical Implications

These findings have practical implications in further understanding aggression in children and the impact of popularity for some of these students. Popularity of students can positively effect both self-esteem and depression scores as shown in this study. A tradeoff seems to occur that a student can present to be aggressive (e.g., which normally leads to negative outcomes) but if that same student is also popular then the negative outcomes are improved due specifically to their social status. Understanding the importance of popularity on both relationally and overtly aggressive children is an important asset for parents and educators to consider. Additionally, this is a great resource for parents and educators to use to become aware of or to promote better inclusion and friendship formations within classrooms and playgrounds. Understanding how depression is positively impacted by popularity is also an important finding for parents and educators to unravel. Educators could be given better tools for identifying aggressive children who are at risk for negative outcomes. However, popularity should not always be positively promoted and should be used with caution. Popularity also has negative aspects as some children who were not necessarily aggressive before, use more relationally aggressive acts after becoming popular (Rose & Waller, 2004).

Utilizing resources and promoting less competition may lead to a more inclusive environment for children and may increase friendship formation and popularity within these

friendships. Knowledge on the effects of relational and overt aggressive behaviour and popularity should be shared within public school classrooms to educate children and teachers on the impacts of aggressive behaviour and the importance of friendships. This would help build a better understanding of social supports for children and the importance for them to promote more inclusive acts to help guard against negative outcomes such as low self-esteem, high depression or physical health concerns.

Interventions for aggressive children could be an important tool for educators and parents working with these children to get a better grasp on the real effects of aggression. One example of a successful intervention for aggressive-rejected children would be to help improve their social skills, which would lead to more positive outcomes and this has been reported to decrease aggression levels and increase peer liking over time (DeRosier, 2004; Fraser, Galinsky, Smokowski, Day, & Terzian, 2005).

Another successful intervention for aggressive children and adolescents, would be to focus on assisting them to change the attitude that being aggressive is perceived as the ‘cool’ way to handle issues (Rodkin et al., 2006), and rearrange this attitude to understand that is it ‘uncool’ for adolescences to use aggression as this means they cannot think of other ways to attract attention (Olthof et al., 2011). Changing the focus here for children and adolescences has been found to be successful. It is important to promote prosocial behavior in children as well.

Study Limitations

A diverse sample is always most desirable, although not always possible when limited to a specific population for recruitment. The majority of students in this study were Caucasian (66.6%) and most students lived with both mother and father (74%). The socioeconomic status in

this sample ranged from lower to upper-middle class. A more diverse sample would have allotted for greater generalization of these findings. Cultural and contextual norms might dictate the profiles of popular children. For instance, aggression might not be rewarded with popularity in all schools or classrooms(Stormshk et al., 1999).

Another potential limitation in this study is the way in which the stability variable was measured. Stability was measured using Time 1 and Time 2 data which was collected over the school year. Data was analyzed and scored as either yes or no, representing whether the student was in the same peer group from beginning to the end of the school year. It did not take into consideration dyadic friendships or the number of students who remained in the same group or the fact that students may have found new supportive relationships. The stability score categorized children with either yes or no scores which leaves many unanswered questions in regards the nature of their relationships over the year. It is possible that friendship stability matters in the moderation of aggression and adjustment, but we were limited in our ability to assess this relationship.

Another limitation is that relational and overt aggression was found to significantly overlap in our analysis. The literature review focused on the two types of aggression and the different aspects and contexts those actions brought to the relationship. In future research, it would be interesting to keep the two types of aggression separate and examine any differences.

Rejection was related to self-esteem and depression but was not found to have any moderating effects between variables. The discrepancy between rejection and the outcomes may better be explained by victimization scores which were not analyzed in this study. It has been found that being a victim does lead to higher anxiety, depression and physiological changes (Cox, 1995). It is important to consider victimization as an alternative explanation for not finding

significant relationships for the rejection variable in the current study. Although similar, victimization may be a stronger predictor of negative outcomes than rejection.

Future Directions

Future research on moderators of aggressive behaviour should further explore the interactions between outcome variables and add victimization into the equation to get a better explanation of positive or negative outcomes for children. Interestingly, not all interactions in this study were supported. This proves that studying children and the interactions between variables can be very complex. Additional consideration of relationship stability or relationship quality and support may also uncover information about the protective role of relationships and outcomes for aggressive children. It is important for researchers to test their measures carefully.

It would be interesting to study the interaction and direction between aggression and popularity, specifically to investigate if aggression leads to higher popularity or if aggression follows popularity. Children who are popular have been found to have higher social skills (Rose & Waller, 2004). The increased social skills of aggressive, popular children could help explain the positive outcomes for those children compared to some negative outcomes for unpopular, aggressive children. Some aggressive children are also better able to be subtler with their aggressive behavior which leads to less consequences, especially for children who use relational aggression (Rose & Swenson, 2009). These interactions could be further investigated to help add to the literature.

The next step from this study, would be to replicate the study and add victimization and stronger stability measures as well as adding observational data to the analysis. The importance of including observational data to this type of study on children is shown from previous research.

In one observational study, it was found that aggressive popular students held negative attitudes towards teachers and school, and the attitudes of aggressive rejected students without popularity were equally negative (Esteveza, et al., 2014). This shows that despite aggressive popular children having social advantages, these children may still hold negative attitudes and values. It would be important for future researchers to investigate this relationship.

More research is needed to add to the literature on popularity outcomes and aggressive behaviour interactions. Longitudinal studies would be helpful to investigate more long-term effects of popularity and if moderating effects of popularity hold over time.

Summary

The present study offers insight into the relationship of relational and overt aggression and popularity and outcomes for children. It does show the importance of popularity and how this can help moderate the negative outcomes that are sometimes associated with aggressive behaviour. The results reiterate what other research has shown, popularity holds many benefits such as social, power, prestige (Dawes & Xies, 2014), peer acceptance (Esteveza et al, 2014), and centrality and prominent (Rose & Swenson, 2009). Also, awareness of both the advantages and disadvantages of aggressive behaviour may help educators and parents get a better grasp on the realities of aggressive situations and the importance of keeping social standing in mind in the classroom as well as at home. Overall, aggressive behaviour must be understood from many perspectives including the impact on victims. This study adds to the literature on the important role popularity plays in children's lives, specifically that popularity moderates the negative effects of self-esteem and depression outcomes.

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