

## **Resource Control Strategies and Aggression among University Students**

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Present study examined the relationship between resource control strategies, aggression and victimization among university students by using correlational research design. Sample of 300 student with the age range of 20 to 30 years was recruited from public universities by using convenient sampling strategy. Resource Control Strategy Inventory (Hawley, 2006) (cite source) and Self Report of Aggression and Social Behavior (Morales, Crick, & Collins, 2002) were instruments used to assess resource control strategies, aggression and to collect data from participants. Results showed significant positive relationship between coercive control strategies and aggression (including both relational, and physical). While prosocial control strategy was found to be positively related with relational aggression and negatively related with the physical aggression. Results from the present study revealed that men students are high on relational aggression, coercive control strategies and overall results revealed students used more prosocial and coercive control strategies to deal with their aggressive behavior.

*Keywords.* Resource control strategies, relational aggression, physical aggression.

Achieving goals is very basic to human life and those who successfully access to the preferred resources among social group are considered to be socially dominant (Hawley, 1999). Evolutionary perspectives asserted that social dominance is essential feature of dyadic

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and group relations (Vaughn, 1999). Social dominance viewed as coercive or aggressive behavior traditionally, but recent evolutionary approach suggests that dominant individuals are not aggressive rather they are socially central (Hawley, 1999, 2002; Pellegrini, 2008; Vaughn et al., 2003).

The approaches that an individual use to control resources and status are called resource control strategies. An influential work of Hawley (1999) redefine the concept of social dominance and proposed the resource control theory. Theory proposed the two major categories i.e., coercive and prosocial strategies of resource control. Coercive strategies entail the immediate, direct and aversive behaviors such as using physical power, or threatening others to snatch the resources from them (Hawley, 2002). On the other hand, gaining of resources by efficiently promoting positive social mutual relationships such as friendship, cooperative, or alliances included into prosocial strategies (Charlesworth, 1996). Five subgroups of individuals are identified on the base of employment of strategies to control resources. First group is known as prosocial controllers who employ prosocial strategies, second group is known as coercive controller group who used coercive strategies. Third group based on individuals who used both prosocial and coercive strategies are called bi-strategic and fourth group is called non-controllers, who do not employ any strategy while fifth group known as typical controllers are those who are not high on any strategy (Hawley, 2003; Hawley et al., 2002). Relative to resource control strategies aggression also gained the most attention because while controlling the resources, individual use aggressive approaches. In view of evolutionary theory highly effective resource controllers can be simultaneously aggressive (Hawley, 2003; Pellegrini & Bartini, 2001). Moreover, aggression has potential negative consequences for aggressor and victim (Moffitt, 1993).

Aggressive behavior appears to persist both over time and across generations and predicts maladaptive outcomes such as hostility, delinquency in adult years (Huessmenn, Eron, Lefkowitz, & Walder, 1984). Drive theories reflected that various external conditions (e.g., frustration) tend to be a reason to get involved in harm producing

behaviors, such as aggression, (Dollard, Miller, Doob, Mower & Seers, 1939). Freud explained the aggression as innate and inevitable part of human beings. Information processing model suggests that aggression is linked with deficiency and distortions in social information processing in children and adolescents (Dodge, Lochman, Harnish, Bates, & Pettit, 1997).

Traditionally, physical form of aggression is referred to the utilization of physical power (such as hitting or punching) to hurt others (Craig, 1998; Fry & Gabriel, 1994; Paquette, & Underwood, 1999). However, Crick and Grotpeter, (1995) identified the new type of aggression i.e., relational aggression. They argue that with the development of social skills, nature of aggressive behavior change into indirect aggression. It involves the behavior intended to hurt others by disparaging the relationships or feelings of security and love is called relational aggression. Most obvious examples of relational aggression includes spreading rumors, secrets, or gossips about a friend, ignoring a friend, excluding a friend from peer group, or intimidating to end a relationship (Remillard, & Lamb, 2005).

Aggression and victimization are closely related phenomenon. Mostly victimization is considered a risk factor for internalizing behavior (Reijntjes, Kamphuis, Prinzie, & Telch, 2010). However few studies have focused on how victimization is a risk factor for various externalizing behaviors such as aggression, drug use and delinquency (Sullivan, Farrell, & Kliewer, 2006).

Current study also aimed to identify the gender differences in aggression resource control strategies and victimization. Literature suggests that physical aggression is more common among men than women (Coie & Dodge, 1998). In contrast, relational aggression is frequently viewed as the female form of aggression (Crick, & Grotpeter, 1995) but greater level of ambiguity in literature is present. Recent meta-analytic review conducted by Merrell, Buchanan, and Tran (2006) found that number of studies suggests that relational aggression is more common among females. On the other hand (Card, Stucky, Sawalani & Little, 2008) conducted a meta-analysis examined direct and indirect aggression which includes indirect, relational, social, and covert

aggression and suggest that there are negligible gender differences in indirect aggression.

A study conducted by Findley and Ojanen, (2013) indicated that aggression including physical and relational has positive relationship with coercive control strategies. However prosocial control strategies negatively related with physical aggression

Individuals who employ both prosocial and coercive strategies and display high level of relational aggression contain higher level of moral maturity. Individuals who do not use strategies to control resources are among the lowest on positive view about himself, self-perception and low on aggressive tendencies (Hawley, 2003). There is limited research available regarding the resource control in victimized individuals.

Olthaf et al (2011) conducted a study with children sample and concluded that victims have low resource control and less dominant, however an important finding was that strategy use profile is similar to other group members. A recent research by Clark, Dorio, Demaray, and Malecki, (2020) found the non-significant association between resource control strategies and victimization in adolescents. Victims are perceived as less socially skill than others. Use of resource control strategies lower the risk of victimization (Saldarriaga, 2010).

There is strong association between physical aggression and relational aggression with numerous social adjustment problems in schools, that includes peer rejection, peer maltreatment, as well as internalizing and externalizing difficulties (Crick et al., as cited in Kawabata, Tseng, & Crick, 2014). Resource control is important phenomenon which is linked with different kinds of aggression and effective resource control reduce the risk of victimization.

### **Rationale of the Study**

Resource control strategies is related to how competently an individual attain resources in the environment. In student's life various type of resources (e.g., available information and social interaction with peers) are important for cognitive growth, physical health and wellbeing (Ciarrochi, Sahdra, Hawley, & Devine, 2019). Both overt and covert competition is part of human nature. Hawley and Little (2002) proposed

the different resource control groups on the basis of strategies. Current study aimed to identify what type of strategies used by students to control resources for better adaptation in environment. To our best knowledge, resource control strategies have never explored in Pakistan. So the present study will help to add in knowledge with respect to the students and their behavior.

Traditionally aggression has been focused due to its negative consequences but evolutionary perspective posit that aggression has its adaptive value to control resources for their adjustment and success in environment (Findley & Ojanen, 2013). This study was planned to identify the relationship of aggression within framework of resource control theory. In Pakistan most attention has been paid toward physical form of aggression and investigated with reference to internalizing problems, parenting style, quality of life, social problem solving social information processing, acting out tendencies and gender differences (Akhlaq , 2014; Ali, 2008, Bibi, 2014). However, there is scarcity of literature on relational form of aggression, present study also focused on the relational form of aggression along physical aggression. Frequency of physical aggression decreases with age but more subtle form of relational aggression increases. Aggression and victimization has negative consequences and link with social maladjustment (Prinstein, Boergers & Vernberg, 2001). However link between these variables is not much studied and limited research is available with children and adolescents sample. This study will help to find the relationship between using resource control strategies and victimization.

Deterring the gender difference on aggression, resource control strategies and victimization in Pakistan was also focused. Overall goal of a study was to advance existing and relatively new empirical research on strategies of resource control by measuring its relationship between aggression and victimization.

Following are the main objectives of the study

1. To investigate the relationship between resource control strategies and aggression among university students.

2. To identify the resource control groups on the basis of resource control theory among students.
3. To explore the gender difference regarding resource control strategies and aggression among university students

## **Method**

### **Research design**

The present study used correlational research design and aimed to examine the relationship between resource control strategies and aggression among adults

### **Sample**

The sample of this research comprised of university students with age range of 20 to 30 years ( $M = 23.23$ ,  $SD = 2.96$ ). By using the convenient sampling technique, sample of 300 university students was collected from the three public universities. In the present study demographics of gender were also examined. The frequency of men participants were 144(48%) as compared to women i.e., 156(52%).

### **Instruments**

**Assessment Measures Resource Control Strategy Inventory (RCSI).** The Resource Control Strategy Inventory (Hawley, 2006) was used to assess prosocial and coercive resource control strategies and guidelines for result of same author were also followed. This instrument consists of 12 items concerning prosocial resource control strategies (6 items ( $\alpha = .74$ )) and coercive resource control strategies (6 items ( $\alpha = .74$ )). Respondents rated their level of agreement with each statement using scales ranging from 1(*strongly disagree*) to 7(*strongly agree*). For both coercive and prosocial strategies score range lies from 7 – 42. Higher score showed higher use of corresponding strategy. Resource control groups were generated by dividing the participants' response on strategy use, with respect to their percentiles. The group who scored in the top 66th percentile on both types of resource control strategies are called bistrategic controllers. Coercive controllers scored in the top 66th percentile on coercive control strategies but average or low (> 33<sup>rd</sup>

percentile) on prosocial control strategies. Prosocial controllers scored in the top 66<sup>th</sup> percentile on the prosocial control strategies but average or lower on the other control strategies. Typical controllers scored between 33<sup>rd</sup> percentile and 66<sup>th</sup> percentile on both prosocial and coercive control strategies. Non controllers scored in the lower 33<sup>rd</sup> percentile on both prosocial and coercive strategies.

**Self-Report of Aggression and Social Behavior Measure (SRASBM).** The SRASBM developed by Morales and Crick (as cited in Linder, Crick, & Collins, 2002) was used to obtain the respondent's self-reports of aggressive behavior and victimization from others. It is designed for adults and consists of 6 subscales. Two subscales measure the aggression so in the present study only those two subscales were utilized to collect the data. The first subscale is relational aggression ( $\alpha = .75$ ) include the items no. 9, 11, 15, 23, 24, 27, 28, 36, 45, 52, and 55 Physical Aggression ( $\alpha = .76$ ) subscale comprised items no. 5, 21, 32, 39, 44, 56 Scoring of SRASBM was conducted by summing the mean of all items. High scores on the subscale indicate high level of aggression

### **Procedure**

For the purpose of collecting data from, permission was first obtained from the university administration. Students were approached by using the convenient sampling techniques. Inform consent was taken from each student and instructions were provided to fill the instrument. All instruments were used in English language because of university students can understand both Urdu and English language easily. The participants were then provided the copy of the demographic sheet, and two set of instruments. Confidentiality of responses was assured and briefed that they can quit any time. Instruction to fill the questionnaire were written and also verbally given and assured that they can ask any question in case of difficulty in understanding of any item. All other ethical considerations like anonymity and no harm were also followed. At the end respondents were warmly thanked for their participation and cooperation.

### **Results**

For both scales the Cronbach's alpha coefficient were used to determine reliability. Descriptive statistics were showed the normality of data computed. Pearson product moment correlation were computed to examine the relationship between resource control strategies and aggression. Groups of resource controllers were identified with the help of frequency and percentages. Mean differences of resource control groups on aggression were found through Analysis of Variance). Independent sample *t*-test was done to assess the gender differences.

Table 1

*Alpha Reliability Coefficient and Descriptive Statistics on RCSI and SRASBM (N=300)*

Variables	items	$\alpha$	<i>M</i>	<i>SD</i>	Range		Skewness	Kurtosis
					Potential	Actual		
P.S	6	.74	23.45	6.74	6 - 42	7- 42	-.13	-.40
C.S	6	.74	16.52	6.34	6- 37	7- 42	.43	-.22
R.A	16	.75	38.72	10.8	16- 79	16- 80	.43	-.19
P.A	6	.76	13.11	4.96	6- 26	6- 30	.50	-.79

Note  $\alpha$  = alpha reliability; Ps = Prosocial Strategy; Cs;=Coercive Strategy; Aggression and Social Behavior; RA=Relational Aggression; PA= Physical Aggression; *M*= Mean; *SD*= Standard Deviation.

As results indicated Resource Control Strategy Inventory and Self Report of Aggression and Social Behavior Measure have good reliabilities ranging from .63 to .76. Mean value of prosocial strategies indicates that mostly adults use prosocial strategies as compared to the coercive control strategies. Relational aggression is higher than physical aggression.

**Table 2**

*Correlation Between Resource Control Strategies and Aggression among University Students (N=300)*

No	Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1	PS	23.45	6.74	-	.35*	.20**	-.16*
2	CS	16.52	6.34		-	.45**	.44**
3	RA	38.72	10.8			-	.68**
4	PA	13.11	4.96				-



Note: Ps= Prosocial Strategy; Cs; Coercive Strategy; RA=Relational Aggression; PA= Physical Aggression.

\*\*  $P = <.001$ ; \* $P = <.05$ .

Results revealed that there a significant positive relationship ( $p < 0.05$ ) between prosocial strategy and relational aggression. Prosocial strategy is negatively related to physical aggression and victimization (physical, relational).

### **Frequency and Percentage of Resource Control Groups.**

Resource control strategies are considered to be relative differential, so resource control groups were created by dividing the distributions of the responses to the prosocial and coercive strategies.

Table 3

*Frequency and Percentage of Resource Control Groups among University Students*

Resource Control Groups	Frequency <i>F</i>	Percentage %age
Prosocial controllers	57	19
Coercive Controllers	96	32
Non controllers	38	12
Typical controller	39	13

Note:  $f$  = frequency; %age = percentage.

Results indicated that in current study group of bistrategic controllers were not identified. Second group is identified as coercive controllers (32%) who scored on above 66th percentile on coercive control strategies but average ( $> 66^{\text{th}}$  percentile) or low on prosocial control strategies. Prosocial controllers (19%) scored in the top 66th percentile on the prosocial control strategies but average ( $> 66^{\text{th}}$  percentile) or lower on the coercive control strategies. Typical controllers (12%) scored less than the 66th percentile on both prosocial and coercive control strategies but only in the lower 33rd percentile on no more than

one of these control strategies. Non controllers (13%) are those who scored less than 33rd percentile on both type of strategies.

**Comparison of Resource Control Groups on Aggression among University Students.** To find the mean differences of resource control groups on aggression Analysis of Variance (ANOVA) was computed. The following tables show the results.

**Table 4***Mean Differences of the Resource Control Groups on Aggression and Victimization*

Variable	Pro-social controller	Coercive controller	Non- Controller	Typical controller	<i>F</i>	(I-J)	D(I-J)	<i>SE</i>	95% CI	
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )					LL	UL
RA	36.48	43.25	31.6	36.44	10.66 *	Pro.con < coer.con Coer.con> non con Coer.con >typ.con	-6.76*	1.90	-11.85	-1.68
	(19.19)	(9.44)	(10.22)	(12.38)			11.65*	2.48	5.02	18.2
							6.87*	2.27	-7.37	-12.8
PA	10.5	14.49	8.97	10.97	17.62 *	Pro.con<coer.contCoer.con> non.conCoer.con>typ.con	-3.91*	.76	-6.00	-1.9
	(4.49)	(4.75)	(3.69)	(4.85)			5.52*	.87	.34	1.52
							3.52*	.87	.10	4.59

Note: RA= Relational Aggression; PA= Physical Aggression; Pro.Beh = Prosocial Behavior; Pro.con= Prosocial Controller; Coer. Cont =Coercive Controller; Non cont= Non Controller; Typi.cont= Typical Controller; *M*= Mean; *SD*= Standard Deviation; *SE*= Standard Error; *CI*=Confidence Interval= LL=Lower Limit; UL= Upper Limit; I-J = Mean difference; D (I-J) = Differential Mean Difference  $p < .05$ .

It has been found that coercive controller group is significantly higher on both relational aggression and physical aggression as compare to other resource control groups.

**Gender Differences on Resource Control Strategies and Aggression Among Young Students.** Gender differences were assessed through independent sample *t*-test between men and women on resource control strategies, aggression and social behavior among adults.

Table 5

*Mean Differences of Gender on the Resource Control Strategies and Aggression Among University Students.*

Variable	Men (n=144)		Women (n=152)		<i>t</i> (298)	<i>p</i>	95% <i>CI</i>		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
	RCSI	41.88	11.4	38.50			9.98	2.68	
PS	23.43	7.00	23.65	6.50	.28	.77	-1.76	1.31	-0.03
CS	18.45	6.73	14.87	5.45	5.08	.00	2.19	4.92	0.58
RA	41.18	10.4	33.83	9.68	5.50	.00	4.41	10.39	0.73
PA	14.43	4.86	9.63	3.70	9.5	.00	3.80	5.78	1.11

Note: RCSI= Resource control Strategies; PS= Prosocial Strategies; CS= Coercive Control Strategies; RA= Relational aggression; PA= physical aggression; *M*= mean; *SD*; Standard Deviation; *LL*= lower limit; *UL*= upper limit; *CI*= confidence Interval.

Table 7 represents the significant gender differences on resource control strategies. Men were higher on coercive control strategies than women. Men show more aggression as compared to women.

## Discussion

Findings of the present study indicates that there is significant relationship between resource control strategies and aggression. It has been confirmed that prosocial control strategy is positively related with relational aggression. This findings are in line with previous studies (Olthof et al., 2011; Pellegrini & Bartini, 2001). The reason for this relationship is that social skills are required for controlling resources effectively and relationally aggressive individuals have these social skills

(Card & Hodges 2008). Prosocial control is related to relational aggression in both boys and girl. Relationally aggressive individuals can easily understand the environment and this can help them to control resources more effectively (Hawley, 2003). Another findings are that adults who use coercive strategies also high on physical aggression. Previous studies suggested that, coercive controllers use physical force or take resources forcefully from any one by threatening (Hawley, 2002; Bernstein, 1981; Strayer & Strayer, 1976) Profile descriptions of coercive controllers tell us that they are harsh, impetuous, unskillful, and socially rejected aggressors, despite the fact that they control resources more than normal (Hawley, 2003a). This show that there is positive association between coercive strategies and use of physical aggression. Additionally, in current study physical aggression show negative association with prosocial resource strategies because to control resources prosaically, mutual dependence, cooperation, and unasked help and alliance formation is required (Findley & Ojanen, 2013; Hawley, 2002).

In current study by analyzing mean differences resource control group were created. Four groups i.e., prosocial controller, coercive controller, typical and non-controller were obtained on the resource control strategy inventory. Previous studies (Hawley, Johnson, Mize, & McNamara, 2007; Hawley, Little, & Card, 2008) identified the five groups including bistrategic controllers which are not identified in current sample of study. Clark, Dorio, Demaray, and Malecki, (2020) did not identified the coercive control group. However more research is needed to explore the resource control groups. Results indicated that coercive control group scored high on aggression (physical and relational). Past researches supported the findings that coercive controllers are higher on aggression than all other groups on resource control (Hawley et al., 2008). However they are lower than bistrategic controllers on relational aggression (Banny, Heilborn & Prinstein, 2011). Prosocial, typical and non-controller groups are higher on relational aggression as compared to physical aggression. Hawley (1999) suggests that for controlling resources pro-socially individual must behave friendly and need collaboration with others which in turn help in long term access to social

resources and promote positive friendship. That's why prosocial and typical controllers are lower on physical aggression. While being relationally aggressive help them to control resources more effectively (Ostrov, 2008).

In the current study gender differences on coercive control strategy was found that men use more coercive control strategy as compared to women (Hawley et al., 2008) Gender differences on relational aggression are considered to be debatable. Relational aggression initially taken as female form of aggression (Murray-Close, & Ostrov, 2009). Other studies have not found evidence for gender differences (Card et al., 2008; Tackett, Waldman, & Lahey, 2009). However, some have found that boys are more relationally aggressive than girls (David & Kistner, 2000). In present study male were showing more relational aggression as compared to women. A study conducted in India reported that male show more relational aggression than female (Saini & Singh, 2008).

### **Limitations and Suggestions**

The present study has certain limitations. In current study four groups i.e., prosocial, coercive, typical and non-controllers were identified on resource control strategies. Individuals who use both strategies (bistrategic) were not identified. More studies in future is required with different sample and age range for more clarity in perspective of resource control groups. Moreover, we studied the correlation of resource control strategies and aggression. There is need to explore more correlates of resource control strategies with different age groups. Another limitation is that we explored the types of aggression and victimization among university students. It is recommended for the further researches to study the cause and outcome of aggression with psychosocial adjustment and other related variables in indigenous perspective. With regarding gender differences on relational aggression we found that men are more relationally aggressive in our culture. Mostly past researches indicated that women are more relationally aggressive, although some researches in other countries showed the similar pattern but further research is needed to clear this ambiguity. Another limitation is that we relied on self-reported data, however, by using multi-

informants more reliable information can gathered. Although bilinguals were studied but translation and adaptation of scales can improve the applicability of scales with children and adolescents. University students from Rawalpindi and Islamabad were taken in study. By taking the students from universities of all provinces can improved the generalizability of results.

### **Implications**

After comprehensive detail of entire study, it highlighted several important features. Individual control resources by using aggression are more vulnerable to victimization. Effective use of resource control can lower the risk of victimization. Study identified that aggressive behavior can also exist in university students which is negative and associated with psychosocial adjustment problems. So there is need to make intervention program by social psychologist to control such negative behavior in academic settings. The present study highlight the need to raise awareness of the destructive nature of this behavior for the wellbeing of the both aggressor and victims. Identification of the coercive controllers who use physical and relational aggression can help the school psychologist and counselors to arrange the programs so that they can accept the negative behavior and replace in positive way.

### **Conclusion**

Present study focuses on the relationship between resource control strategies and aggression. Coercive control strategy is more linked with physical aggression while prosocial control strategy is more related to relational aggression. Men are more aggressive than women. Identification of these behaviors in adults draw our attention to make intervention plans to cater such behaviors.

### **References**

- Akhlaq, J. I. (2014). *Parenting style, aggression and quality of life across disabled and normal children*(Unpublished MSC research report). National Institute of Psychology, Quaid-I-Azam University, Islamabad.

- Ali, M. (2008). Impact of parental attachment on aggressive behavior of adolescents. (Unpublished MSC research report). National Institute of Psychology, Quaid-I-Azam University, Islamabad.
- Bagner, D. M., Storch, E. A., & Preston, A. S. (2007). Romantic relational aggression: What about gender?. *Journal of Family Violence*, 22(1), 19-24.
- Bernstein, I.S. (1981). Dominance relationships and ranks: Explanations, correlations, and empirical challenges. *Behavioral and brain sciences*, 4(03), 449-457.
- Banny, A. M., Heilbron, N., Ames, A., & Prinstein, M. J. (2011). Relational benefits of relational aggression: adaptive and maladaptive associations with adolescent friendship quality. *Developmental Psychology*, 47(4), 11- 53. doi. 10.1037/a0022546
- Bibi, N. (2014). Moderating role of perceived social support between relational aggression and family maladjustment among Adolescents (Unpublished MSC research report). National Institute of Psychology, Quaid-I-Azam University, Islamabad.
- Buhs, E. S., & Ladd, G. W. (2001). Peer rejection as antecedent of young children's school adjustment: An examination of mediating processes. *Developmental psychology*, 37 (4), 550, doi:10.1037/0012-1649.37.4.550
- Card, N. A., & Hodges, E. V. E. (2008). Peer victimization among schoolchildren: Correlations, causes, consequences, and considerations in assessment and intervention. *School Psychology Quarterly*, 23(4), 451– 461.
- Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development*, 79(5), 1185-1229.
- Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*, 24(1), 123-130.



- Carlo, G., Knight, G. P., McGinley, M., Zamboanga, B. L., & Jarvis, L. H. (2010). The multidimensionality of prosocial behaviors and evidence of measurement equivalence in Mexican American and European American early adolescents. *Journal of Research on Adolescence, 20*(2), 334-358.
- Charlesworth, W. R. (1996). Co-operation and competition: Contributions to an evolutionary and developmental model. *International Journal of Behavioral Development, 19*(1) 25–38.
- Clark, K. N., Dorio, N. B., Demaray, M. K., & Malecki, C. K. (2020). Understanding bullying, victimization, and bystander behaviors through resource control theory. *Child and Youth Care Forum, 49*(4), 489-510.
- Coffey, P., Leitenberg, H., Henning, K., Bennett, R. T., & Jankowski, M. K. (1996). Dating violence: The association between methods of coping and women's psychological adjustment. *Violence and Victims, 11*(3), 227-238.
- Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. Damon, William Eisenberg, Nancy (Ed),. *Handbook of child psychology, Social, emotional, and personality development*. (5<sup>th</sup> ed. Vol. 3. pp. 779-862). Hoboken, NJ, US: JohnWiley & Sons
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social psychological adjustment. *Child Development, 66*(3) 710 –722.
- David, C. F., & Kistner, J. A. (2000). Do positive self-perceptions have a “dark side”? Examination of the link between perceptual bias and aggression. *Journal of Abnormal Child Psychology, 28*(4), 327-337.
- Dodge, K. A., Lochman, J. E., Harnish, J. D., Bates, J. E., & Pettit, G. S. (1997). Reactive and proactive aggression in school children and psychiatrically impaired chronically assaultive youth. *Journal of Abnormal Psychology, 106*(1), 37-50. doi:10.1037/0021-843X.106.1.37
- Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). *Frustration and aggression*. New Haven, CT, US: Yale University Press.

- Findley, D., & Ojanen, T. (2013). Adolescent resource control Associations with physical and relational aggression, prosocial and withdrawn behaviors, and peer regard. *International Journal of Behavioral Development*, 37(6), 518-529, doi: 10.1177/0165025413503420
- Fry, D. P., & Gabriel, A. H. (1994). Preface: The cultural construction of gender and aggression. *Sex Roles*, 30(3), 165.
- Paquette, J., & Underwood, M. (1999). Gender Differences in Young Adolescents' Experiences of Peer Victimization: Social and Physical Aggression. *Merrill-Palmer Quarterly*, 45(2), 242-266. Retrieved from: <http://www.jstor.org/stable/23093677>
- Hawly, H. P. (1999). The Ontogenesis of Social Dominance: A Strategy-Based Evolutionary Perspective. *Developmental Review* 19(1), 97-132. Retrieved from: <http://www.idealibrary.com>
- Hawley, P. H. (2002). Social dominance and prosocial and coercive strategies of resource control in preschoolers. *International Journal of Behavioral Development*, 26(2) 167-176.
- Hawley, P. H. (2003a). Strategies of control, aggression, and morality in preschoolers: An evolutionary perspective. *Journal of Experimental Child Psychology*, 85(3), 213- 235.
- Hawley, P. H. (2006). Evolution and personality: A new look at Machiavellianism. I D. Mroczek, & T. Little (Eds.), *Handbook of Personality Development* (pp 250-290). New Jersey: Lawrence Erlbaum.
- Hawley, P. H., Johnson, S. E., Mize, J.A., & McNamara, K. A. (2007). Physical attractiveness in preschoolers: Relationships with power, status, aggression and social skills. *Journal of School Psychology*, 45, 499-521.
- Hawley, P. H., Little, T. D., & Card, N. A. (2008). The myth of the alpha male: A new look at dominance-related beliefs and behaviors among adolescent males and females. *International Journal of Behavioral Development*, 32(1), 76-88. doi:10.1177/0165025407084054
- Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). Stability of aggression over time and generations.

- Developmental psychology*, 20(6), 1120–1134.  
doi:10.1037/0012-1649.20.6.1120
- Jekielek, S., Brown, B., & Trends, C. (2005). The transition to adulthood: Characteristics of young adults ages 18 to 24 in America. *Baltimore, MD: Annie E. Casey Foundation*.
- Krebs, D. L. (1970). Altruism: An examination of the concept and a review of the literature. *Psychological Bulletin*, 73(4), 258-302.  
doi./10:1037/h0028987.
- Linder, J. R., Crick, N. R., & Collins, W. A. (2002). Relational aggression and victimization in young adults' romantic relationships: Associations with perceptions of parent, peer, and romantic relationship quality. *Social Development*, 11(6), 69–86.
- Merrell, K. W., Buchanan, R., & Tran, O. K. (2006). Relational aggression in children and adolescents: A review with implications for school settings. *Psychology in the Schools*, 43(3), 345-360.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: a developmental taxonomy. *Psychological Review*, 100(4), 674-701.
- Murray-Close, D., Ostrov, M. J., Crick, N. R. (2007). A short-term longitudinal study of growth of relational aggression during middle childhood: Associations with gender, friendship intimacy, and internalizing problems. *Development and Psychopathology*, 19. doi: 10.10170S0954579407070101.
- Murray-Close, D., & Ostrov, J. M. (2009). A longitudinal study of forms and functions of aggressive behavior in early childhood. *Child Development*, 80(3), 828-842.
- Murray-Close, D., Ostrov, J. M., & Crick, N. R. (2007). A short-term longitudinal study of growth of relational aggression during middle childhood: Associations with gender, friendship intimacy, and internalizing problems. *Development and Psychopathology*, 19(1), 187-203.
- Ostrov, J. M. (2008). Forms of aggression and peer victimization during early childhood: A short-term longitudinal study. *Journal of Abnormal Child Psychology*, 36(3), 311-322.

- Ostrov, J. M., & Crick, N. R. (2007). A short-term longitudinal study of growth of relational aggression during middle childhood: Associations with gender, friendship intimacy, and internalizing problems. *Development and Psychopathology*, *19*(01), 187-203.
- Olthof, T., Goossens, F. A., Vermande, M. M., Aleva, E. A., & Van-der Meulen, M. (2011). Bullying as strategic behavior: relations with desired and acquired dominance in the peer group. *Journal of School Psychology*, *49*(3), 339-359.
- Pellegrini, A. D., & Bartini, M. (2001). Dominance in early adolescent boys: Affiliative and aggressive dimensions and possible functions. *Merrill-Palmer Quarterly*, *47*(1), 142-163.
- Pellegrini, A. D. (2008). The roles of aggressive and affiliative behaviors in resource control: A behavioral ecological perspective. *Developmental Review*, *28*(4), 461-487.
- 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.
- Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect*, *34*(4), 244-252.
- Remillard, A. M., & Lamb, S. (2005). Adolescent girls' coping with relational aggression. *Sex Roles*, *53*(3-4), 221-229.
- Saini, S., & Singh, J. (2008). Gender differences in relational aggression and psychosocial problems in romantic relationships among youths. *Journal of the Indian Academy of Applied Psychology*, *34*(2), 279-286.
- Saldarriaga, M. L. (2010). *The moderating effects of prosocial behaviour, friendship quality and social problem solving in the relationship between risk factors and peer victimization in Colombian early adolescents* (Unpublished PhD dissertation). Concordia University, Colombia, Canada.

- Schwartz, D. (2000). Subtypes of victims and aggressors in children's peer groups. *Journal of Abnormal Child Psychology*, 28(2), 181-192.
- Strayer, F. F., & Strayer, J. (1976). An ethological analysis of social agonism and dominance relations among preschool children. *Child Development*, 47, 980-989.
- Sullivan, T. N., Farrell, A. D., & Kliewer, W. (2006). Peer victimization in early adolescence: Association between physical and relational victimization and drug use, aggression, and delinquent behaviors among urban middle school students. *Development and psychopathology*, 18(1), 119-137.
- Tackett, J. L., Waldman, I. D., & Lahey, B. B. (2009). Etiology and measurement of relational aggression: A multi-informant behavior genetic investigation. *Journal of Abnormal Psychology*, 118(4), 722. doi: 10.1037/a0016694
- Vaughn, B. E., Vollenweider, M., Bost, K., Azria-Evans, K., & Snider, J. B. (2003). Negative interactions and social competence for preschool children in two samples: Reconsidering the interpretation of aggressive behavior for young children. *Merrill Palmer Quarterly*, 49, 245-278

Received June 7th, 2018

Revisions Received January 8th, 2021

