

Rejection Sensitivity and Aggression in Adolescence: Examining the Role of Anger Rumination



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INTRODUCTION

Rejection Sensitivity (RS) is defined as the chronic disposition to defensively expect, readily perceive, and intensely overreact to rejection (1). RS individuals are hypervigilant to cues of rejection and display a bias to perceive ambiguous situations as rejections (2). High levels of RS have also been linked to hostile and aggressive responses towards both strangers and intimate partners (3,4). However, little is known about the process through which RS is hypothesized to lead to aggression.

Rumination is a maladaptive cognitive process involving repetitive thoughts that are intrusive and aversive (5). Anger rumination refers to thinking repeatedly about one's angry feelings, which serves to both maintain and intensify these feelings (5). These repetitive thoughts have been linked to increased levels of anger, as well as overt and relational aggression (6,7,8).

Although both RS and anger rumination are maladaptive cognitive processes associated with aggressive outcomes, no study to date has examined the relationship between RS and anger rumination. The current study attempted to fill this gap by investigating this association in a sample of male and female youth at high risk for aggression.

We anticipated that both RS and anger rumination would be positively associated with aggressive outcomes in these youth. Furthermore, we predicted that anger rumination would serve to mediate the relationship between RS and aggression.

METHOD: Measures

Rejection Sensitivity Questionnaire-Revised (RSQ-R). The RSQ-R is a 12-item revised version of the Children's Rejection Sensitivity Questionnaire (9). This measure consists of 6 hypothetical situations in which rejection by a close friend and a romantic partner are possible. For each situation, participants are asked to indicate both their degree of anger and anxiousness about a possible negative outcome on a 4-point scale ranging from 1 (not at all) to 4 (extremely). The RS Anger subscale was used in the current study.

The Sadness and Anger Rumination Inventory (SARI). The SARI (4) consists of 11 items for each form of rumination, with the words *angry* and *anger* in the anger rumination measure replaced with *sad* and *sadness* in the sadness rumination measure. Participants indicate on a 5-point scale ranging from 1 (*Never*) to 5 (*Always*) how often they engage in activities described by each item, when they are angry or sad. The SARI has demonstrated good reliability and validity (4).

Form-Function Aggression Measure (FFAM). The FFAM (10) is a self-report instrument that enables the examination of two forms of aggressive behaviour (overt and relational) and two functions of aggression (instrumental versus reactive). The 25 items comprising this test are scored on a four point scale ranging from "not true at all" to "completely true". Alpha coefficients for each scale have been found to range from .62 to .84 (11). Overall overt and relational aggression subscales were used as outcome measures.

METHOD: Participants and Procedure

Participants were part of the Gender and Aggression Project (Vancouver site), a longitudinal study of high-risk youth in North America. Youth were assessed at three time points within a five-year period. The current study examines relationships at Time 1 and Time 2, approximately two years later.

Participants at Time 1 were 86 males and 74 females, ages 12 to 18 ($M = 15.16$, $SD = 1.48$). Participants at Time 2 were 40 males and 48 females, ages 14 to 21 ($M = 17.68$, $SD = 1.42$). Participants were recruited from a maximum and minimum security custody center, and a provincial center for youth with severe conduct problems. Youth completed semi-structured clinical interviews, diagnostic assessments, and self-report measures.

Table 1. Descriptive Statistics

	Males		Females	
	Mean	SD	Mean	SD
T1 RS	1.80	.54	2.21	.64
T1 Anger Rumination	27.91	11.37	35.24	10.25
T1 Overt Aggression	1.98	.68	1.98	.74
T1 Relational Aggression	1.45	.44	1.66	.54
T2 Overt Aggression	1.71	.49	1.61	.50
T2 Relational Aggression	1.24	.30	1.46	.41

Table 2. Zero-order Correlations

	1	2	3	4	5	6
1. T1 RS		.424**	.042	.169	.066	-.085
2. T1 Anger Rumination	.305**		.426**	.350**	.342*	-.085
3. T1 Overt Aggression	.449**	.466**		.527**	.582**	.225
4. T1 Relational Aggression	.264*	.374**	.637**		.363*	.278
5. T2 Overt Aggression	.344*	.242	.567**	.339*		.639**
6. T2 Relational Aggression	.236	.265	.273	.358*	.553**	

Note: Correlations for males appear above the diagonal; correlations for females below the diagonal. * $p < 0.05$; ** $p < 0.01$

RESULTS

Hierarchical multiple regression analyses were performed to test the relationships between RS and anger rumination at Time 1 with aggressive outcomes at both Time 1 and Time 2. Analyses were first run on the overall sample, however, gender was found to be a significant covariate, therefore analyses were run separately for males and females (see Table 3 for Time 1 relationships).

Time 1

For males, anger rumination was significantly associated with both overt and relational aggression at Time 1, but RS was not associated with either form of aggression. An indirect effect of RS on both overt and relational aggression through anger rumination was found however. In females, both RS and anger rumination were associated with increased levels of overt and relational aggression. A mediation effect of anger rumination on the relationship between RS and overt and relational aggression was also found in these females (see Figures 1 and 2).

Time 2

For males, anger rumination at Time 1 was predictive of overt aggression at Time 2 ($\beta = .376$, $t(37) = 2.13$, $p = .040$). In females, only RS at Time 1 was predictive of overt aggression at Time 2 ($\beta = .344$, $t(45) = 2.46$, $p = .043$).

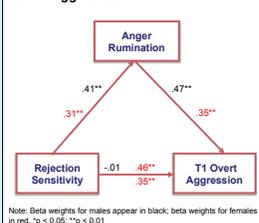
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Table 3. RS and Anger Rumination Predicting Time 1 Overt and Relational Aggression

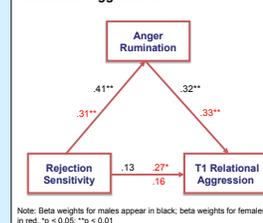
Step	DV	T1	DV T1 Overt Aggression					
			Males			Females		
			β	t	p	β	t	p
1	T1 RS	-.012	-.108	.914	.459	4.34	.000	
2	T1 RS	-.204	-1.92	.059	.348	3.36	.001	
	T1 Anger Rumination	.474	4.47	.000	.354	3.42	.001	
Step	DV	T1	DV T1 Relational Aggression					
			Males			Females		
			β	t	p	β	t	p
1	T1 RS	.127	1.18	.243	.266	2.31	.024	
2	T1 RS	-.003	-.023	.981	.164	1.42	.160	
	T1 Anger Rumination	.320	2.84	.006	.325	2.81	.006	

Figure 1. Mediation Model for Time 1 Overt Aggression



Note: Beta weights for males appear in black; beta weights for females are in red. * $p < 0.05$; ** $p < 0.01$

Figure 2. Mediation Model for Time 1 Relational Aggression



Note: Beta weights for males appear in black; beta weights for females are in red. * $p < 0.05$; ** $p < 0.01$

DISCUSSION

In agreement with our predictions, both RS and anger rumination were associated with aggressive behaviour. However, these associations were found to differ between males and females in the sample. The anger component of RS was directly related to aggression exhibited by females but not males. In contrast, anger rumination was found to be related to aggressive acts in both males and females.

Findings in the current study also suggest that anger rumination is a possible intermediate explanatory variable in the association between RS and aggressive behaviour. Furthermore, they suggest that the processes by which RS and aggression are linked may differ for young males and females. These findings highlight the need for further research into potential intervening variables in the association between RS and aggression, as well as gender differences in such risk factors for aggression. The results of this study must be considered in the context of the sample used which included adolescents with significant behavioural problems and traumatic histories.