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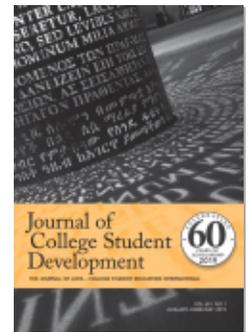
## Five-Factor Model of Personality, Social Anxiety, and Relational Aggression in College Students

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Journal of College Student Development, Volume 60, Number 1, January-February  
2019, pp. 110-114 (Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/csd.2019.0007>



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## **Five-Factor Model of Personality, Social Anxiety, and Relational Aggression in College Students**

Daniel L. Deason   Eric R. Dahlen   Michael B. Madson   Emily Bullock-Yowell

Relational aggression involves behaviors intended to harm others' social relationships, reputation or status, and feelings of belonging (Linder, Crick, & Collins, 2002). Relationally aggressive behaviors (e.g., social exclusion, malicious gossip, ignoring someone) are likely to interfere with college students' well-being and success. Examples of the adverse correlates of relational aggression include peer rejection, anxiety and depression, poor psychological adjustment, problematic alcohol use, and dysfunctional anger (Dahlen, Czar, Prather, & Dyess, 2013; Goldstein, 2011; Werner & Crick, 1999). Campus professionals regularly encounter the impact of relational aggression. University housing offices receive complaints about relationally aggressive living situations, resident assistants are asked to settle disputes involving relationally aggressive students, and counseling center staff encounter students experiencing emotional distress due to relational victimization. By improving our understanding of relational aggression, we will be better equipped to mitigate its impact on campus. We investigated the relationship of the Five-Factor Model (FFM; Goldberg, 1990) of personality and social anxiety to peer relational aggression among college students.

The FFM conceptualizes personality as involving five latent domains: intellect/imagination (i.e., openness to experience), conscientiousness, extraversion, agreeableness, and emotional stability (i.e., the inverse of neuroticism). The FFM has been used to understand the role of personality in overt aggression where the strongest relationships involve low emotional stability, low agreeableness, and low conscientiousness (Hosie, Gilbert, Simpson, & Daffern, 2014; Miller, Zeichner, & Wilson, 2012). While less is known about the relationships of FFM traits to relational aggression, most of the traits should be relevant. Low emotional stability involves an increased tendency to experience unpleasant emotional states (e.g., anger), and low agreeableness involves antagonism and hostility. Students high in extraversion enjoy groups and social events, suggesting they may be more likely to participate in group activities where relational aggression occurs. The role of conscientiousness is less clear, but the inverse relationship between conscientiousness and impulse control suggests that it might be inversely related to at least some forms of relational aggression. Burton, Hafetz, and Henninger (2007) found that low emotional stability, low agreeableness, and low

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conscientiousness were related to relational aggression. Similarly, Hines and Saudino (2008) found that low emotional stability was positively related to psychological aggression in students' intimate partnerships, while conscientiousness and extraversion were positively related to psychological aggression, and agreeableness was inversely related to psychological aggression only among women. Learning more about the relationship of personality traits to relational aggression may be useful in improving our understanding of why some students are more relationally aggressive than others.

A relationship between social anxiety and relational aggression has long been posited, but research investigating it has been sparse. Socially anxious students who fear negative evaluation may engage in relationally aggressive behaviors to deflect attention from themselves, removing from their peer group those from whom they anticipate negative evaluation (Loudin, Loukas, & Robinson, 2003). The limited research connecting social anxiety to relational aggression is generally supportive. For example, Storch, Bagner, Geffken, and Baumeister (2004) found that relational aggression was positively associated with social anxiety in a college student sample, and Loudin and colleagues (2003) found that students who feared negative evaluation were more likely to engage in relationally aggressive behaviors. Thus, there is reason to expect that social anxiety is relevant to understanding relational aggression. It remains unclear whether social anxiety has the potential to explain unique variance in relational aggression beyond the FFM.

We explored the relationships among the broad domains of personality represented by the FFM, social anxiety, and relational aggression in a college student sample. We expected that emotional stability, agreeableness, and conscientiousness would be inversely related to relational aggression while extraversion would

be positively related to relational aggression. In addition, we expected that social anxiety would be positively related to relational aggression, explaining additional variance over and above gender and the full FFM.

## METHOD

### Participants and Procedure

Undergraduate volunteers ( $N = 342$ : 143 men and 199 women) of traditional college age were recruited from a midsized Southeastern university in the United States using the Department of Psychology's web-based research system. Of the sample, 62% identified themselves as Caucasian/White, 34% as African American / Black, 2% as Hispanic/Latino, 1% as Asian, and 1% as American Indian / Alaskan Native. Those who provided informed consent were directed to a brief demographic questionnaire followed by all study measures, all of which were completed online through a secure survey host. The procedure was approved by the institutional review board of the researchers' university.

### Measures

*Relational Aggression.* Relational aggression was assessed with the 7-item general/peer relational aggression scale from the Self-Report Measure of Aggression and Victimization (Morales & Crick, 1998). Items were rated on a 7-point scale from 1 (*not at all true*) to 7 (*very true*) so that high scores indicated greater relational aggression. The scale has demonstrated good internal consistency in college student samples (Dahlen et al., 2013; Linder et al., 2002), including ours with  $\alpha = .85$ .

*Personality.* The broad domains of the FFM were assessed with the 50-item International Personality Item Pool Big-Five Factor Marker Scales (IPIP-BFFM; Goldberg, 1999). This measure forms five 10-item scales: extraversion, agreeableness, conscientiousness, emotional stability, and intellect/imagination. Items

were rated on a 5-point scale from 1 (*very inaccurate*) to 5 (*very accurate*). The scales have demonstrated evidence of internal consistency ( $\alpha$ s ranged from .74 to .86 in our study).

*Social Anxiety.* Symptoms of social anxiety were assessed using a combination of the 20-item Social Interaction Anxiety Scale (SIAS) and 20-item Social Phobia Scale (SPS) developed by Mattick and Clarke (1998). The SIAS assesses difficulties interacting with others in interpersonal situations, and the SPS assesses fear related to being negatively evaluated during routine activities. Items on both scales were rated on a 5-point scale from 1 (*not at all*) to 5 (*extremely*). Both scales have demonstrated evidence of 3-month stability, have strong internal consistency ( $\alpha = .93$  for the SIAS and  $\alpha = .95$  for the SPS in our study), and differentiate between social anxiety and other anxiety disorders (Mattick & Clarke, 1998; Peters, 2000). Given the overlap between the SIAS and SPS (our interest in an overall index of social anxiety) and precedent in the social anxiety literature (e.g., Levinson & Rodebaugh, 2012), we computed a standardized social anxiety (SSA) score ( $\alpha = .96$ ) by converting the total scores on both measures (i.e., the total SIAS score and the total SPS score) to  $z$  scores and summing them.

## RESULTS

Given the skewed distributions of relational aggression and social anxiety, bootstrapping was used to create 95% bias-corrected and accelerated (BCa) bootstrap confidence intervals with 1,000 bootstrap samples. Bootstrapping is a nonparametric resampling method that provides a robust means of estimating confidence intervals when variables are not normally distributed (Ong, 2014). If the 95% confidence interval does not contain 0, the effect is significant at the .05 level.

Agreeableness, conscientiousness, emotional stability, and intellect/imagination

were inversely related to relational aggression,  $r$ s =  $-.34$ ,  $-.18$ ,  $-.27$ , and  $-.16$ , 95% CIs [ $-.43$ ,  $-.24$ ], [ $-.28$ ,  $-.09$ ], [ $-.38$ ,  $-.15$ ], and [ $-.26$ ,  $-.06$ ]; scores on the SSA composite were positively related to relational aggression,  $r = .31$ , CI [ $.18$ ,  $.43$ ]. Hierarchical multiple regression was used to determine which FFM traits were related to relational aggression and whether social anxiety would explain additional variance in relational aggression beyond the FFM. Relational aggression was regressed on respondent gender, the five IPIP-BFFM scales, and the SSA composite (see Table 1). Extraversion, agreeableness, and emotional stability were related to relational aggression, explaining an additional 20% of the variance beyond gender. Students higher in extraversion and lower in agreeableness and emotional stability were more relationally aggressive. The addition of the SSA composite on Step 3 improved the model, accounting for an additional 7% of the variance beyond gender and the IPIP-BFFM scales. Students who reported more symptoms of social anxiety (e.g., difficulty talking with others, feeling tense in a group) were more relationally aggressive.

## DISCUSSION

Relational aggression can be detrimental to college students' emotional well-being and academic success; however, relatively little is known about why some students are more likely to behave in relationally aggressive ways. As expected, students higher in extraversion and lower in agreeableness and emotional stability reported being more relationally aggressive. These findings were consistent with much of the previous literature on overt and relational aggression (e.g., Burton et al., 2007; Miller et al., 2012), providing further support for the utility of the FFM in understanding relational aggression. Also consistent with previous research (e.g., Loudin

et al., 2003; Storch et al., 2004), students who were more socially anxious were more likely to report relational aggression. Moreover, social anxiety explained additional variance in relational aggression even after taking gender and the full FFM into account. While few studies of relational aggression among college students have incorporated measures of social anxiety, it appears that there is merit in doing so. Despite its overlap with extraversion and emotional stability, social anxiety demonstrated incremental validity in accounting for variance in relational aggression.

This study was limited by a sample drawn from a single university, restricting the ability to generalize the results. Additional research in different regions may be helpful in identifying relevant cultural factors. The reliance on self-report data was another limitation. Although self-report measures of relational aggression are often preferred over peer ratings for emerging adults, the use of informant data should be considered for future research. The

cross-sectional and correlational nature of the study was also a limitation. Alternative designs are needed to determine the directionality of the relationship between social anxiety and relational aggression. Finally, the limited variance in relational aggression explained suggests that additional variables will likely be helpful (e.g., including measures of darker traits like psychopathy or narcissism).

Higher education and student affairs professionals are invested in reducing the impact of relational aggression on student mental health, success and retention, and the institutional climate. Our findings may help to inform these efforts. For example, college counselors might use a measure of FFM personality traits to gain insight into students' risk for relational aggression and other interpersonal difficulties. Students scoring high in extraversion and low in agreeableness and emotional stability might be asked about relational aggression and provided with programming to help them avoid it. In

TABLE 1.

Hierarchical Regression Analysis Summary for the Five-Factor Personality Traits and Social Anxiety Predicting General/Peer Relational Aggression (*N* = 342)

Variable	Bootstrapped Values <sup>a</sup>			$\beta$	$R^2$	$\Delta R^2$
	<i>b</i>	<i>SE</i>	BCa 95% CI			
<i>Step 1</i>						
Gender <sup>b</sup>	1.62	.83	[-.44, 3.20]	.11	.01	
<i>Step 2</i>						
Intellect/Imagination	.01	.06	[-.13, .16]	.01	.21	.20**
Conscientiousness	.01	.07	[-.12, .15]	.01		
Extraversion	.27	.05	[.17, .37] <sup>†</sup>	.29		
Agreeableness	-.36	.08	[-.51, -.22] <sup>†</sup>	-.32		
Emotional Stability	-.19	.06	[-.31, -.06] <sup>†</sup>	-.19		
<i>Step 3</i>						
Standardized Social Anxiety Composite	1.39	.35	[.71, 2.06] <sup>†</sup>	.35	.28	.07**

<sup>a</sup> All 95% confidence intervals (CIs) are bootstrapped using 1,000 resamples of the data.

<sup>b</sup> Gender was coded so that male = 1 and female = 0.

<sup>†</sup> Significant CI values (i.e., do not contain 0).

\*\* *p* < .01.

addition, FFM measures may be a useful addition to first-year experience programs as a means of promoting self-awareness and assisting new students in recognizing how various aspects of their personality may make them more or less susceptible to various forms of interpersonal conflict. And while social anxiety is a common presenting problem for students seeking mental health services, few counselors would consider its association with relational aggression. If future research supports a directional relationship between social anxiety and relational aggression, this could have implications for prevention and treatment (e.g., socially anxious students

could be provided with prosocial strategies for meeting their needs without resorting to relational aggression, relationally aggressive students might benefit from interventions designed to treat social anxiety). In sum, this study advances our knowledge of relational aggression among college students by identifying which aspects of personality are likely to be most salient and highlighting the relevance of social anxiety.

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