A Psychometric Investigation of the Young Adult Social Behavior Scale (YASB)

Michelle Rene Augustin
University of Southern Mississippi

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A PSYCHOMETRIC INVESTIGATION OF THE YOUNG ADULT SOCIAL BEHAVIOR SCALE (YASB)

by

Michelle Rene Augustin

Abstract of a Dissertation Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

December 2010
ABSTRACT

A PSYCHOMETRIC INVESTIGATION OF THE YOUNG ADULT SOCIAL BEHAVIOR SCALE (YASB)

by Michelle Rene Augustin

December 2010

Aggressive behavior is a serious public health concern that has resulted in several problems in contemporary society. Despite a considerable body of literature on human aggression, both popular and scientific, a focus on overt physical aggression has obscured other forms of aggression. As a result, considerably less is known about other, more subtle forms of aggression, such as relational aggression. Moreover, research on relational aggression, particularly among older adolescents and adults, has been hindered by the lack of psychometrically sound measures. Research in this area would be enhanced by the availability of such a measure, facilitating comparison of data across studies and reducing ambiguity over definitions of relational aggression and similar constructs.

The present study involved a psychometric evaluation of the Young Adult Behavior Scale (YASB; Crothers, Schreiber, Field, & Kolbert, 2008), a self-report measure of relational aggression. College student volunteers completed the YASB and several other measures of similar and dissimilar constructs selected to evaluate construct validity. Confirmatory factor analysis was used to test the proposed 3-factor structure, which was confirmed in two separate analyses. The three subscales were internally consistent, and evidence of construct validity and concurrent criterion validity was provided. The clinical and research implications of these findings are discussed.
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Approved:

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Director

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Dean of the Graduate School

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CHAPTER I

INTRODUCTION

Aggressive behavior is a serious public health concern, resulting in a number of problems in contemporary society. Acts of violence are unfortunately common (Dinkes, Cataldi, & Lin-Kelly, 2007) and tend to receive the most media coverage; however, even milder instances of aggressive behavior cause significant adverse outcomes. For example, aggressiveness in children has been linked to juvenile delinquency, anxiety, depression, and adult antisocial behaviors (Grotpeter & Crick, 1996; Sullivan, Farrell, & Kliewer, 2006). Additionally, aggression occurring in the context of intimate relationships has been associated with post-traumatic stress, social withdrawal, emotional distress, and anxiety (Margolin & Gordis, 2004; Martin, 2002). Some have even suggested that aggressive driving may be responsible for as many as 2/3 of driving-related fatalities in the United States (Martinez, 1997).

In recent years, there has been an explosion of literature, both popular and scientific, on aggression as a response to the cost of aggressive behavior (Merrell, Buchanan, & Tran, 2006). Most of the popular writings focus on apparent increases in aggressive behaviors (e.g., are we in the midst of a “road rage” epidemic?) and gender differences in types of aggression. The scientific literature has focused primarily on overt physical aggression. As a consequence, considerably less is known about other, more subtle forms of aggression (Storch, Werner, & Storch, 2003).

Relational aggression is one such type of aggression that has only recently began to receive attention. Broadly, relational aggression can be defined as engaging in behaviors with “the intent to harm another through the exploitation of a relationship”
(Remillard & Lamb, 2005, p. 221). Despite recent increases in the amount of literature exploring relational aggression and its effects on children and adolescents (Brown, 2003; Crick, Casas, & Nelson, 2002; Eder, 1990; Hadley, 2003; Remillard & Lamb, 2005), researchers are still attempting to define, measure, and understand relational aggression and its effects on both the victim and the aggressor (Hadley, 2003). This is particularly evident in the adult literature where there have been relatively few studies of relational aggression conducted with adult samples (Werner & Crick, 1999).

One important obstacle to research on relational aggression in adults is the lack of psychometrically sound measures for assessing relational aggression among older adolescents and adults. Studies of children and younger adolescents have often utilized peer nomination or teacher/parent report measures of relational aggression (Merrell et al., 2006). Such methods are widely thought to provide more accurate information about relationally aggressive behaviors. However, these methods are less useful for older adolescents and adults because these groups tend to spend relatively little time with a specific peer group, teacher, or parent (Crothers et al., 2008). The need for alternative methods has been recognized, but the field has been slow to develop and validate new self-report measures of relational aggression that would be applicable to older individuals.

The proposed study has two primary goals. First, we seek to validate the Young Adult Social Behavior Scale (YASB; Crothers et al., 2008), a recent self-report instrument developed to assess relational aggression among adults. The YASB appears promising in that its 3-factor structure has been supported through confirmatory factor analysis, and there is preliminary support for convergent and discriminant validity.
However, additional information is needed on the construct validity of the measure, and no research to date has investigated the internal consistency, or criterion validity of the YASB. Thus, the proposed study aims to conduct a thorough validation of the YASB in a college sample to provide additional information on how this instrument works. Second, we aim to expand the meager literature on relational aggression in adults by beginning to map the correlates of relational aggression. While this goal is directly linked to the first goal via construct validity, we also plan to incorporate some measures of peripheral constructs in order to begin mapping the nomological network around relational aggression in a college sample (see Anastasi & Urbina, 1997 for information on construct validity).

Relational Aggression

Defining Relational Aggression

Relational aggression refers to “behaviors that harm others through damaging their relationships, feelings of acceptance, inclusion in social groups, and friendships,” (Merrell et al., 2006, p. 345). Stated another way, relational aggression is “a form of aggression that involves attempts to harm others through the manipulation and damage of relationships and feelings of social inclusion,” (Werner & Crick, 1999, p. 615).

Relationally aggressive acts include a multitude of behaviors, both direct and indirect. Examples of more direct relationally aggressive behaviors include ignoring someone, threatening to end a friendship, using a hostile tone or voice, and excluding someone. Examples of indirect relationally aggressive acts include gossiping, spreading rumors, and writing notes about someone. What these behaviors have in common is that they are done with the intent of damaging the victim’s self-esteem or social status by controlling
and manipulating relationships (Crick et al., 2002; Crothers, Field, & Kolbert, 2005; Remillard & Lamb, 2005; Rose, Swenson, & Waller, 2004; Updegraff, Thayer, Whiteman, Denning, & McHale, 2005).

Relational aggression is closely related but distinct from two other constructs: indirect aggression and social aggression. Indirect aggression is typically restricted to covert behaviors in which the aggressor may be unidentifiable. Until recent years, the term indirect aggression was used to refer to verbal acts, such as spreading rumors and gossiping (Coyne, Archer, & Eslea, 2006). However, Björkqvist et al., (2001) noted that indirect aggression can include physical acts. For example, indirect physically aggressive acts may include damaging someone’s property, theft, or setting up circumstances designed to cause physical harm to another person (Bushman and Anderson, 1998). Björkqvist and colleagues (2001) noted that the distinguishing feature of this type of aggression is the covert and circuitous nature of the aggressive behaviors.

Social aggression is more difficult to distinguish from relational aggression, as it has been defined in terms that are very similar to that of relational aggression. For example, Galen and Underwood (1997) described social aggression as aggressive acts, whether direct or indirect, “directed toward damaging another’s self-esteem, social status, or both…” (p. 589). However, Remillard and Lamb (2005) noted that relational aggression includes acts “aimed to damage the target’s social status or self-esteem” (p. 221). Coyne and colleagues (2006) noted that social aggression includes all indirect and relationally aggressive behaviors while Crothers and colleagues (2005) indicated that relational aggression includes socially aggressive behaviors (i.e., gossiping, social exclusion, and stealing friends) and direct relationally aggressive behaviors.
(confrontational strategies designed to inflict interpersonal damage).

In short, there is considerable overlap between indirect, social, and relational aggression, making it difficult to distinguish clearly among the three. Not surprisingly, researchers continue to debate whether these three terms represent three distinct constructs or whether they are all referring to one unique construct. And, if it is true that they are all the same construct, it must be determined which term best captures said construct (Coyne et al., 2006; Merrell et al., 2006). Merrell and colleagues (2006) argue that indirect aggression is too narrow of a term, as it only allows for indirect aggressive acts while the type of aggression being discussed here can and frequently does include direct acts. On the other hand, the authors argue that social aggression is too broad, noting that a literature search using this term demonstrates that hundreds of studies have used this term when studying aggression in animals. As a result, Merrell and colleagues (2006) advocate using the term relational aggression to refer to both indirect and direct forms of aggression occurring within a human relationship.

*Methodological Issues in Measuring Relational Aggression*

Most research on relational aggression has focused on child and adolescent samples, as this is the age range when friendships, emotional closeness, and peer acceptance are regarded as most critical for normal development. For example, Pipher (2002) argued that female friendships become increasingly important during adolescence and may aid in the development of a sense of well-being. Further, these friendships allow for the development of social competence and adaptive coping skills (Yoon, Barton, & Taiariol, 2004). During adolescence, autonomy from parents increases, which coincides with - or perhaps leads to - an increased reliance on social support (Sullivan et al., 2006).
Brown (2003) noted that with appropriate social support, adolescent girls will “do and say things that are remarkably creative and brave and ‘out of character’…they will stand on principle, rebuke a school bully, report sexual harassment or abuse, develop a radically new idea, fight stereotypes” (p. 4). However, Brown (2003) also stated that girls can be extremely tough on other girls, encouraging strict conformity and engaging in relational aggression when standards of conformity are not met.

Relational aggression has been studied in several different ways across childhood and adolescence. One common practice is to use a sociometric technique, a method that involves having individuals rate their peers on a variety of factors. The three most common sociometric techniques are peer nomination, peer rating, and peer ranking (Merrell et al., 2006). Underwood (2003) argues that sociometric techniques are especially useful for school-aged children and early adolescents. These methods are commonly used because they provide information from multiple informants and assess the peer network directly. This is considered advantageous over observational methods (e.g., teacher or trained observer ratings) because relational aggression is often covert, making it difficult to reliably observe (Merrell et al., 2006). Sociometric ratings are also thought to be more advantageous than observational methods because great variation in the meaning of relationally aggressive behaviors across the lifespan may complicate observational ratings and require more in-depth training of raters than is sometimes practical (Underwood, Galen, & Paquette, 2001).

Despite the popularity of sociometric techniques, they have a number of limitations. First, ethical concerns may be raised by the difficulty involved in obtaining informed consent for an entire peer group. Second, children are likely to use their own
gender stereotypes in evaluation the aggressive behaviors of others; thus, the sociometric ratings are likely influenced by children’s gender-role stereotypes as is aggressive behavior (Underwood et al., 2001). Finally, and most relevant to the present study, sociometric methods may not be feasible with older adolescent and adult samples (Hadley, 2003; Merrell et al., 2006). As Underwood (2003) pointed out, sociometric assessment can be accomplished with some organized groups in the college environment (e.g., Greek organizations, athletic teams, etc.), but it is doubtful that such results would generalize to the larger college population. First, participation in an organized group does not necessarily mean that the organized group is an individual’s primary social group. Additionally, college students’ social groups likely vary considerably throughout the day, complicating the process of both defining and measuring one’s primary social circle (Crothers et al., 2008). Another complication of measuring relational aggression in the college student population is that the teacher and parent ratings so popular in studies of children and adolescents (Crothers et al., 2008) are less useful here because teachers and parents typically have less involvement in the social interactions of college students. In fact, there are limits on the validity of teacher ratings for individuals as young as middle childhood (Underwood, 2003). Behavioral observation too is impractical and of limited utility because of the covert nature of relational aggression, the complexity of the construct, and the time- and labor-intensive nature of conducting behavioral ratings of this nature (Crothers et al., 2008; Merrell et al., 2006). Thus, the study of relational aggression among older adolescents and adults would benefit from an alternative assessment method.

Self-report measures of relational aggression may help to overcome many of the
limitations discussed above. Self-report questionnaires allow investigators to quickly assess a number of relevant variables, such as the frequency, intensity, and nature of specific relationally aggressive behaviors. By utilizing an individual’s report of his/her relationally aggressive behaviors, researchers gain access to covert behaviors which would be far more difficult to detect using other methods. Additionally, self-report questionnaires tend to be much more cost-effective in nature, primarily due to the decrease in time required by the research team. A self-report measure may require less material and is likely to be able to be administered in a short period of time to a large group of people. Other methods, like sociometric measures or observational settings, require increased time, energy, and resources (Crothers et al., 2008; Merrell et al., 2006).

That is not to say that the use of self-report measures is without limitations. Unlike sociometric methods, self-report relies on honest and accurate reporting on the part of the participants (Merrell et al., 2006). It could be argued that respondents are likely to underreport the frequency of relationally aggressive behaviors because of the socially undesirable nature of such behaviors. However, research suggests that with other psychological constructs, social desirability does not appear to significantly influence self-report of such behavior (see Buss & Perry, 1992; Harter, 1982; and Williams, Paulhus, & Hare, 2007). Perhaps the primary limitation of self-report measures of relational aggression is that few of the available questionnaires have been subjected to the sort of empirical scrutiny expected of research instruments. The few self-report scales developed to assess relational aggression, such as the Social Experience Scale (Crick & Grotpeter, 1996) and the Relational Aggression Questionnaire (Werner & Crick, 1999), were designed for children and/or younger adolescents. Although some researchers have
modified their questions to make them more suitable for use with college students (Burton, Hafetz, & Henninger, 2007), little is known about the psychometric strengths and weaknesses of these instruments (Crothers et al., 2008). For example, Werner and Crick (1999) developed a peer nomination instrument developed to assess prosocial behavior, aggressive behavior, and peer sociometrics. Seven items were specifically designed to measure relational aggression. These items can easily be reworded to form a self-report measure (i.e., “When mad, retaliates by excluding others from activities” can be changed to “When I am mad, I retaliate by excluding others from activities). As a peer nomination measure, the items comprising the relational aggression scale have been found to be highly reliable. Despite the fact that this instrument has been used as a self-report measure (see Baslow, Cahill, Phelan, Longshore, & McGillicuddy-DeLisi, 2007 for example), there is no published support for its psychometric properties as a self-report measure.

*Research on Relational Aggression in Early Adolescence*

Research on relational aggression in early adolescence has typically focused on either identifying attitudes associated with relationally aggressive behavior or on correlates of relational aggression in this age group. For example, Coyne and colleagues (2006) examined the frequency of various types of aggression as well as perceived harmfulness of these behaviors. They administered the Indirect/Social/Relational Aggression scale (ISRA) to 191 girls and 216 boys attending average-sized high schools in North West England (participants were in United States grade equivalencies of sixth, seventh, and eighth grades). The ISRA is a two-part survey that required participants to first indicate how frequently certain aggressive behaviors had occurred within a week’s
time span. Then, they were asked to indicate on a 4-point Likert scale how harmful each behavior would be if it had happened to them. The authors found that indirect forms of aggression were the most common and that relational aggression was the most harmful form of aggression.

Remillard and Lamb (2005) also examined attitudes associated with relational aggression, specifically looking at friendships. They used data from 82 girls in grades 6-12. To measure relational aggression, girls were asked to write about a time they were hurt by a female friend because the friend had been relationally aggressive. This was followed with questions about the closeness of the friend, how long ago the incident had happened, how hurt the girl was, and how angry she was. Participants also completed the Revised Ways of Coping Scale (Folkman & Lazarus, 1985) and were then asked further questions about the incident previously described, including questions about current closeness to the friend, what extent she still considered the person to be her friend, and to what extent she believed that her friend still considered her to be a friend. The authors found that 40% reported that they were still friends with the perpetrator and that they were closer now than before the incident. The level of perceived closeness prior to the event was related to both how hurt an individual felt by the incident but also how close they were after the event. A higher level of anger about the event resulted in it being less likely the girl still considered the perpetrator a friend. Another notable finding was that the participants’ report of the extent to which she still viewed the perpetrator as a friend was a point lower than their report of the extent to which they believe the perpetrator still viewed them as friends.

Other researchers have begun to identify correlates of relational aggression in
early adolescence. For example, Crothers and colleagues (2005) used both a quantitative and a qualitative method to examine the relationship between relational aggression and traditional feminine gender roles in ninth grade girls. They found that girls who considered themselves to have a more traditional feminine gender role were more likely to report engaging in relationally aggressive behaviors. Additionally, adolescent girls also believed that girls were more likely than boys to engage in relationally aggressive behaviors as a form of conflict management. However, participants indicated that girls who used more direct forms of conflict management (or traditionally masculine forms) were at an increased risk for rejection by both female peers and adults.

Rose et al. (2004) also identified correlates of relational aggression in young adolescents by investigating the relationship between perceived popularity and both relational and overt aggression. Specifically, they were interested in exploring the unique contributions of each form of aggression on perceived popularity while controlling for the other form. A second goal was to examine gender and developmental differences in the relationship of overt and relational aggression on perceived popularity. Participants were in third, fifth, seventh, or ninth grade. Each student participated in a peer nomination process in which he or she was given a 16-item instrument and a list of classmates for each item. The third- and fifth-graders were given a list of the students in their class, as they were in self-contained classrooms. However, seventh- and ninth-graders were given a list of 30 randomly selected classmates for each question to simplify the data collection process, as they were not in self-contained classrooms. Students nominated peers on overt aggression, relational aggression, and popularity (to measure perceived popularity). Investigators first looked at the relationship between perceived popularity and overt and
relational aggression without controlling for the alternate form of aggression. They found that for the third graders, relational and overt aggression were negatively related to perceived popularity. However, for fifth graders, neither form of aggression was generally related to perceived popularity. A different trend was seen for the seventh- and ninth-grade, as there were positive relationships between both forms of aggression and perceived popularity. Next, the unique contribution of each form of aggression to perceived popularity while controlling for the other form was investigated. Overt aggression was not a unique contributor to perceived popularity for any grade. However, for seventh- and ninth-graders, relational aggression had a consistent positive and unique contribution to perceived popularity. The second study, which collected data longitudinally, demonstrated that initial relational aggression was positively associated with subsequent increases in perceived popularity for seventh- and ninth-grade girls. Additionally, higher levels of perceived popularity during initial data collection were positively associated with increased relational aggression at the second data collection for fifth-, seventh-, and ninth-grade girls.

Updegraff and colleagues (2005) investigated the correlates of relational aggression in adolescent sibling relationships with the quality of the relationship with the adolescent’s parents. Data on sibling relational aggression, sibling relational qualities, parent-adolescent relationship qualities, and parental involvement in the sibling relationship was collected from 197 families. Rates of relationally aggressive behaviors between siblings were positively correlated with negativity in the sibling relationship and inversely correlated with sibling intimacy for both boys and girls. Additionally, the authors found no support for the hypothesis that the relationship between relational
aggression and sibling relationship quality changes over time.

Other researchers have found that engaging in relational aggression in early adolescence is positively related to engaging in a number of negative behaviors, including physical aggression, alcohol use, gateway drug use, and antisocial or delinquent behaviors. For example, Herrenkohl et al. (2007) attempted to identify factors likely to result in an adolescent becoming more relationally aggressive and to determine if these factors are the same as those that result in an increase in physical aggression. Data on seventh and ninth-grade students from the United States were extracted from a larger data set that was part of the International Youth Development Study. Students rated several aggressive behaviors, including relationally aggressive behaviors, on a 0/1 scale with one positive response indicating that the individual had engaged in some form of aggressive behavior over the previous year. In addition, several familial, school, and community factors were examined, including family conflict, family antisocial behavior, parental and personal attitudes toward drug use, academic failure, low commitment to school, community disorganization, perceived availability of drugs and guns, interaction with antisocial peers, and rebelliousness among others. Herrenkohl et al. (2007) found that the level of risk factors in relationally aggressive youth was higher than that of nonoffenders but lower than that of individuals who indicated that they had been physically aggressive or physically and relationally aggressive in the past year. Most notably, they were found to have more negative peer influences, higher levels of rebelliousness, sensation seeking, more favorable attitudes toward antisocial behavior, and a family history of antisocial behavior. The authors claim that while gender was a discriminating factor, with girls representing more of the relationally aggressive children and boys representing more of
the physically aggressive children, this was not a particularly strong determinant, suggesting that some unknown factor is likely a stronger determinant.

Sullivan and colleagues (2006) also studied the correlates of relational aggression. Specifically, they investigated the relationships between physical aggression and relational aggression, the relationship of both to externalizing behaviors (i.e., aggression, delinquent behaviors, and drug use), and whether gender moderates the relationship between being a target of relational aggression and externalizing behaviors. The participants included 276 urban eighth graders. A vast majority of the sample (92%) indicated that they were African-American. Each participant was given the Problem Behavior Frequency Scales (Farrell, King, White, & Valois, 2000) and the Social Experience Questionnaire (Crick & Gropeter, 1996), both of which are self-report measures. Being a target of relational aggression accounted for unique variance across all scales on the Problem Behavior Frequency Scales (Farrell et al., 2000), including engaging in relational aggression, physical aggression, delinquent behavior, and gateway drug use. While boys reported that physical aggression occurred at a higher frequency than girls did, similar frequencies were found for relational aggression across gender. However, the effects of relational aggression varied. After controlling for physical aggression, being a victim of relational aggression was positively correlated with engaging in physical and relational aggression as well as delinquency for girls but not for boys. Additionally, while higher rates of relational aggression were associated with increased cigarette and alcohol use for both sexes, it was only associated with increased marijuana use for girls (Sullivan et al., 2006).

In summary, there have been considerable gains in the literature on relational
aggression in adolescence. Relational aggression among siblings and peers has been linked to a number of factors, including adherence to traditional gender roles, reduced intimacy, diminished social support, negativity, substance use, antisocial or delinquent behaviors, and alcohol use (Crothers et al., 2005; Remillard & Lamb, 2005; Sullivan et al., 2006; Updegraff et al., 2005). Furthermore, there is some evidence that relational aggression impacts perceived popularity and that this relationship interacts with age (Rose et al., 2004).

**Relational Aggression in College Students**

While a good deal is known about relational aggression in early adolescents, considerably less is known about relational aggression in college students and other older adolescents. Given that some of the child and adolescent literature has shown age-related differences in relational aggression (i.e., Rose et al., 2004), the degree to which early adolescent findings will generalize to college students remains unclear. In fact, there is some indirect evidence to suggest that findings from high school samples may not translate well to college. Specifically, Fromme, Corbin, and Kruse (2008) surveyed 2,245 college freshmen at the end of their high school careers and then again at two points during their first year of college. Although their study focused on physical and verbal aggression rather than relational aggression, they found that the rates of reported aggressive behavior decreased from 87.9% on the high school survey to 58.6% on the spring college survey. Further examination of aggression, particularly relational aggression, in college students is needed. While relational aggression has been correlated drug and alcohol use as well as anti-social or delinquent behaviors in early adolescence (see Farrell et al., 2000; Herrenkohl et al., 2007), there have only been two published
studies to date that have examined these factors in adulthood. Similar to the research on relation aggression in early adolescence, the research thus far on college students has primarily focused on attitudes about and perceptions of relational aggression, rather than identifying correlates.

For example, Baslow et al. (2007) examined perceptions of physical and relational aggression among 314 college students as a function of the rater, target, and aggressor gender. They developed two instruments for this study. The first was comprised of 11 scenarios, each depicting an interaction between two friends. Each scenario was about the same two friends and described a relationally aggressive act, a nonaggressive act (filler items), or a physically aggressive act. There were four versions created, two with same-gender characters and two with mixed-gender characters. After each scenario, there were five questions designed to measure each participant’s views on the event in the scenario. Each question was rated on a five-point Likert scale. The second instrument, named the Personal Experience Questionnaire, contained 26 questions designed to explore participants’ experiences with physical and relational aggression. Of the 26-items, six were filler items, six asked about physical aggression, and 14 focused on relational aggression. Half of each question type asked about participants’ experiences as a target of aggression while the other half asked about experiences as a target. Both target gender and aggressor gender affected how participants viewed aggressive behavior. When directed at women, physical aggression was rated as more harmful/aggressive and less acceptable than relational aggression which reflects the results of previous work done with children (Condry & Ross, 1985; Harris, 1991, 1995; Rys & Bear, 1997). Other results that replicated previous findings included the findings that relational aggression
by a female character was rated as less acceptable than relational aggression by a male character; the reverse was true for physical aggression. Further, there were no gender differences in the amount of experience with relational aggression; however, men reported more experience as a target or and as a perpetrator of physical aggression. One last finding was that women rated both relationally aggressive and physically aggressive behaviors as less acceptable, regardless of gender of the perpetrator or target, than did men.

One significant limitation of the Baslow et al. (2007) study involved the absence of psychometrically sound measures of relational aggression suitable for college students. In developing their own measure for this study, the authors bear the burden of providing this information so that the reader can accurately evaluate their findings. They did not do so, raising questions about the reliability and validity of their measures. An additional limitation concerns the generalizability of the study. While the sample size was larger than the sample size for the last study, the sample consisted of primarily European American college students (86.4%). A more diverse sample would help strengthen the results. A third limitation is the use of vignettes, as these do not necessarily represent true reactions to actual events.

One study, conducted by Burton and colleagues (2007) attempted to begin to investigate correlates of relational aggression in college students by studying gender differences in physical and relational aggression and their relationship to depression, anxiety, general emotional understanding and functioning, and the Big Five personality factors among 134 college students (41 men and 93 women). In order to assess physical and relational aggression, each participant was given the Aggression Questionnaire (Buss
& Perry, 1992) and the Relational Aggression Questionnaire (Werner & Crick, 1999). Both were modified so that the Likert scales had consistent wording. Additionally, the authors modified the wording of some items on both scales. Participants were also given the NEO Five-Factor Personality Inventory (Costa & McCrae, 1992), the Beck Depression Inventory (Beck, 1987), the Beck Anxiety Inventory (Beck, 1990), and the Bar-On Emotional Quotient Inventory (Bar-On, 1997) in order to assess correlates of physical and relational aggression. Men reported higher levels of physical aggression than did women, but there was no gender difference in relational aggression. In fact, the amount of relational aggression reported was small (possible range 7-35, mean was 10.4). For women, physical aggressiveness was positively related to Conscientiousness and depression while there was an inverse relationship between physical aggression and stress management. Additionally, there was a trend for physical aggression to be positively associated with adaptability. For men, there was a negative relationship between physical aggression and agreeableness. A higher rate of relationally aggressive behavior was negatively associated with Agreeableness, emotional understanding, and overall emotional functioning for both genders. Additionally, relational aggression was positively associated with Neuroticism for women and negatively associated with empathy, social responsibility, and interpersonal skills.

While Burton and colleagues’ (2007) study did contribute information about the differences between physical aggression and relational aggression and how these differences are reflected in different personality traits, there were several limitations worth noting. First, the sample size was relatively small, and the lack of male participants may have compromised the power to detect gender differences. Next, because of a lack of
empirically-supported instruments designed for use with college students, the authors used a measure of relational aggression that was designed as for use with younger children. Additionally, there was no psychometric information provided about this instrument, raising questions about reliability and validity. An additional limitation of this study is that it did not examine drug and alcohol use or antisocial personality traits, even though these have all been positively correlated with relational aggression in early adolescents.

Werner and Crick (1999) appear to have been the first to examine the relationship between relational aggression and antisocial personality traits when they examined the link between relational aggression and social-psychological adjustment in college students. Using peer nomination, the authors developed an instrument designed to measure physical and relationally aggressive behaviors, prosocial behaviors, peer acceptance, and peer rejection. Data were collected from 225 residential sorority and fraternity members in order to mimic the naturalistic context that exists in using this method with school children. In addition, participants completed self-report instruments measuring life satisfaction, and disordered eating patterns. The participants also completed selected scales of the Personality Assessment Inventory (PAI; Morey, 1991). These scales included stress, non-support (a measure of perceived social support), depression, borderline personality features, and antisocial personality features. The authors found that the correlates of relational aggression in college students mirrored the correlates found in children. Specifically, they found that higher levels of relationally aggressive behaviors in college students were correlated with fewer prosocial behaviors and greater peer rejection and antisocial personality features. Additionally, Werner and
Crick (1999) found that higher levels of relational aggression were positively correlated with difficult interpersonal relationships, impulsivity, and difficulty with anger management. They did not find consistent gender differences for any variable except bulimia.

There were several limitations to Werner and Crick (1999) study. First, there is some question as to the generalizability of the study, given that the sample was restricted to residential fraternity and sorority members. Similar to work done by Baslow et al. (2007) and Burton et al. (1997), another limitation of this study is the lack of psychometrically sound instruments to measure relational aggression. While Werner and Crick (1999) designed their study to explore the utility of using a peer nomination process with college students, they provided no evidence on the reliability or validity of these methods with their sample. Additionally, the authors claim that a self-report measure would likely provide minimal estimates of the actual rates of relational aggression given that past research with children suggests that self-report of aggression are subject to self-reporting bias (Cairns & Cairns, 1994; Werner & Crick, 1999). However, given that college campuses encompass a large social milieu, most college students interact with a larger variety of individuals than children or young adolescents who spend most of their day with the same peer group. As a result, a peer nomination process is likely not the best method for assessing relational aggression in the general college student population.

Storch, Werner, and Storch (2003) explored the relationship between relational aggression and psychosocial adjustment, including alcohol use and antisocial personality features, among college athletes. Using the peer nomination method, they used the same
measure developed by Werner and Crick (1999) in their study on the relationship between relational aggression and psychosocial adjustment in fraternity and sorority members. Additionally, each participant completed the depression, alcohol problems, nonsupport, borderline personality features, and antisocial personality features subscales of the Personality Assessment Inventory (PAI; Morey, 1991). Storch and colleagues (2003) found that relationally aggressive behaviors were associated with maladjustment among college athletes. Additionally, they found that, similar to Werner and Crick’s (1999) results, relationally aggressive behaviors were positively associated with peer rejection. They also found that rates of relationally aggressive behaviors were positively correlated with alcohol use and negatively correlated with prosocial behaviors for women. Relational aggression was not associated with social support, depression, or borderline personality features. Storch et al., (2003) suggested that this difference from Werner and Crick (1999) may be due to reduced power resulting from their smaller sample size. In addition, they raised the possibility of differential associations between relational aggression and various adverse outcomes among athletes (e.g., alcohol abuse).

The limitations of this study are similar to those of Werner and Crick’s (1999) study. In particular, the results may not be generalizable to college students in general given that the sample was limited to college athletes, a small subset of college students. Additionally, there is concern about the lack of psychometric properties for the peer nomination instrument the authors used. A further concern is the small sample size ($N = 105$), which provides relatively little statistical power.

Finally, Schmeelk, Sylvers, and Lilienfeld (2008) examined the relationship between relational aggression and personality disorders in a nonclinical sample.
Undergraduate students ($N = 220$) completed the Relational Aggression Scale (Markon, 2003), the relational aggression subscale of the Self-Report of Aggression and Social Behavior (Morales & Crick, 1998) as well as two measures of personality disorders and a measure of psychopathy. The authors found that Cluster B (Antisocial, Borderline, Histrionic, and Narcissistic) personality features were more correlated with relational aggression than Cluster A or Cluster C personality features. Additionally, relational aggression was highly correlated with psychopathic features, even after controlling for overt aggression. As with other studies, a major limitation of this study concerned the manner in which relational aggression was assessed. One was an unpublished instrument with little data provided to support its psychometric utility, and second was a subscale of a larger instrument designed to look at relational aggression in the context of intimate partner relationships. Although the internal consistencies of these instruments were impressive, the first does not appear to have been validated as a measure of relational aggression and the second appears to only have been validated as a measure of relational aggression within intimate partner relationships. Further investigation is warranted to determine how this subscale holds up as a measure of relational aggression within peer relationships.

Despite increasing interest in studying relational aggression among college students, the literature remains relatively sparse. Relational aggression appears to be positively associated with alcohol use and antisocial personality features for college students (Schmeelk et al., 2008; Storch et al., 2003; Werner & Crick, 1999) and negatively associated with empathy, social responsibility, and interpersonal skills for women and with Agreeableness, emotional understanding, and overall emotional
functioning for both genders (Burton et al., 1997). College students tend to perceive relational aggression as being less acceptable when it is depicted as coming from women than men (Baslow et al., 2007). However, much of the literature has focused on subgroups of students (e.g., athletes or students living in Greek organizations) that may not be representative of the college student population. Moreover, much of the research on relational aggression in college samples has been conducted using instruments that have not been adequately validated for such a purpose. The study of relational aggression in college students would benefit from having a psychometrically sound self-report measure of relational aggression which had been validated on college students.

The Young Adult Social Behavior Scale

A common theme among the limitations of nearly all the studies investigating relational aggression among college students is the lack of well-developed, psychometrically sound self-report measures of relational aggression. As discussed previously, self-report measures may help to overcome many of the limitations of using peer nomination measures, allow researchers to quickly assess a number of variables, gain access to covert behaviors, and collect data in a cost- and time-efficient manner. The Young Adult Social Behavior Scale (YASB; Crothers et al., 2008) holds great promise as just such a measure. In fact, it was specifically designed as a response to the need for a psychometrically-sound self-report measure of relational aggression among college students.

The YASB was designed for individuals 18-25 years with a Flesh-Kinkaid Grade Level of 8.4. To design the instrument, the authors first listened to adolescent girls’ verbal descriptions of peer conflict in a previous study (Crothers et al., 2005). They then
selected items that they believed best fit their definitions of relational aggression, which includes both socially aggressive behaviors and direct relationally aggressive behaviors, which Crothers et al. (2008) theorize differ in terms of the aggressor’s intentions. Direct relationally aggressive behaviors were defined as “the use of confrontational strategies to achieve interpersonal damage,” (Crothers et al., 2008, p. 4) while socially aggressive behaviors were defined as those designed to “harm the target’s social standing” (Crothers et al., 2008, p. 3). The YASB also includes items designed to measure interpersonal maturity, as the authors theorized that interpersonal maturity would negatively correlate with socially and direct relationally aggressive behaviors (Crothers et al., 2008).

After developing the 14 items comprising the YASB, a confirmatory factor analysis (CFA) was performed on a sample of 629 college students. Three factor models were proposed: Model A included three constructs: social aggression, relational aggression, and interpersonal maturity; Model B also included three constructs: active relational aggression, passive relational aggression, and prosocial behavior; and Model C included two constructs: relational aggression and assertive conflict. Crothers et al. (2008) used the Akaike Information Criterion (AIC; $X^2_m + 2q$, where $q$ is the number of free parameters) to determine which model was the best fit. Model A provided the best fit based on AIC values. Additional fit indices (Tucker-Lewis index of .97 and a comparative fit index of .98) support Model A as a strong statistical fit (Crothers et al., 2008). Further analyses found that the correlation between social aggression and relational aggression was .54, suggesting that the two are related yet distinct constructs, which contrasts with previous literature suggesting that these concepts represent a single construct (Archer & Coyne, 2005).
Unfortunately, the only evidence of convergent and discriminant validity provided by Crothers and colleagues (2008) involved comparisons with an unspecified number of items from the Hyperfemininity Inventory (Murnen & Byrne, 1991), a measure of adherence to traditional feminine gender roles. They found that relational and social aggression were both positively correlated with femininity and that interpersonal maturity was inversely related to femininity. They made no comparisons between the YASB and other measures of relational aggression.

The YASB was selected as the focus for this study because it was designed specifically to assess relational aggression in college students. Additionally, it was designed using psychometrically sound methods, instead of simply adapting a measure used for a different age group or designed for a different type of assessment (i.e., peer nomination instead of self-report). Finally, the YASB was selected because it shows promise as one of the few self-report measures of relational aggression which is both suitable for older adolescents and adults and which has evidence of structural validity. However, there has been only the one study investigating the factor structure, no investigations of temporal stability, internal consistency, or predictive validity, and only very limited evidence of construct validity.

The Present Study

Relational aggression has been linked to a number of psychosocial adjustment problems in adolescence. Specifically, relationally aggressive behaviors have been linked to higher levels of depression, increased alcohol and drug use, lower perceived social support, and fewer prosocial behaviors (Schmeelk et al., 2008; Storch et al., 2003; Werner & Crick, 1999). Recent research suggests that relational aggression, as well as the
associated psychosocial maladjustment, continues to be a problem for college students (Baslow et al., 2007; Burton et al., 2007; Schmeelk et al., 2008; Werner & Crick, 1999), however, there has been very little research investigating relational aggression in the general college student population using a psychometrically sound instrument.

The present study sought to extend the previous work on relational aggression in college students by evaluating the reliability and validity of the YASB and investigating the potential psychosocial correlates of relational aggression in a college sample.

Research Questions

1. Can the 3-factor structure of the YASB (i.e., social aggression, relational aggression, and interpersonal maturity) reported by Crothers and colleagues (2008) be confirmed in a new sample?
2. Does the YASB demonstrate evidence of convergent validity with other measures of relational aggression?
3. Is the YASB more highly correlated with other measures of relational aggression than with measures of general aggression, providing evidence for discriminant validity?
4. Is relational aggression as measured by the YASB positively correlated with measures of drug use, alcohol use, and psychopathic personality traits as found in previous studies, providing evidence of concurrent validity?
5. Does the YASB demonstrate acceptable internal consistency for a research instrument?

Hypotheses

1. The 3-factor structure of the YASB (i.e., social aggression, relational
aggression, and interpersonal maturity) reported by Crothers and colleagues (2008) will be confirmed in a new sample.

2a. The relational aggression subscale and the social aggression subscale on the YASB will be at least moderately related to the relational aggression subscale of the Self-Report Measure of Aggression and Victimization.

2b. Both the social aggression and the relational aggression subscales will be at least moderately related with the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument.

2c. Scores on the Interpersonal Maturity scale will be at least moderately correlated with the prosocial items on the adapted Relational Aggression Peer Nomination Instrument.

3a. The relational aggression subscale on the YASB will be more highly correlated with the total score of the relational aggression subscale of the Self-Report Measure of Aggression and Victimization and with the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument than with the Aggression Questionnaire, a measure of general aggression.

3b. The social aggression subscale on the YASB will be more highly correlated with the total score of the relational aggression subscale of the Self-Report Measure of Aggression and Victimization and with the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument than with the Aggression Questionnaire.

4a. The relational aggression scale of the YASB will be positively correlated with
total scores on the Alcohol Use Disorders Identification Test, the Drug Abuse Screening Test-10, and the primary scale of the Self-Report Psychopathy Scale.

4b. The social aggression scale of the YASB will be positively correlated with total scores on the Alcohol Use Disorders Identification Test, the Drug Abuse Screening Test-10, and the primary scale of the Self-Report Psychopathy Scale.
CHAPTER II

METHODS

Participants

A total of 457 undergraduate students (269 women and 135 men) currently enrolled in psychology courses at The University of Southern Mississippi were recruited through Sona Systems, the Department of Psychology’s web-based research system (http://usm.sona-systems.com). While participation was not limited based on age, data collected on individuals over the age of 25 were excluded given that the YASB was designed for use with individuals between the ages of 18 and 25. This reduced the final sample size to 404 (33.4% men and 66.6% female; $Mdn$ age = 20). Regarding racial/ethnic identification, 56.2% were Caucasian, 39.4% African American, 2% Biracial, 1.2% Asian, 0.5% Latino/Latina, 0.5% Native American, and 0.2% Indian. The study required approximately one hour to complete and was worth one research credit.

Instruments

*Young Adult Social Behavior Scale*

The YASB was designed for individuals 18-25 years with a Flesh-Kinkaid Grade Level of 8.4. The YASB includes 14 items designed to measure socially aggressive behaviors, direct relationally aggressive behaviors, and interpersonal maturity. Crothers et al. (2008) used the Akaike Information Criterion (AIC; $X^2_m + 2[q]$, where $q$ is the number of free parameters) to determine which of three proposed factor structures was the best fit. Model A, which includes three factors (relational aggression, social aggression, and interpersonal maturity), provided the best fit based on AIC values. The relational aggression scale is comprised of items 1, 2, 9, 11, and 13 while the social
aggression scale is comprised of items 4, 5, 7, 8, and 12 and the remaining items (3, 6, 10, and 14) comprise the interpersonal maturity scale. Additional fit indices (Tucker-Lewis index of .97 and a comparative fit index of .98) also provide strong statistical support for this model (Crothers et al., 2008). Crothers et al. (2008) provided limited evidence of convergent and divergent evidence through comparisons with an unspecified number of items from the Hyperfemininity Inventory (Murnen & Byrne, 1991). They found that relational and social aggression were positively correlated with femininity and that interpersonal maturity was inversely related to femininity. No comparisons between the YASB and other measures of relational aggression were reported.

Adapted Relational Aggression Peer Nomination Instrument

A modified version of Werner and Crick’s (1999) a peer nomination instrument were used to measure relationally aggressive behavior and prosocial behavior. Seven items were specifically designed to measure relational aggression. As a peer nomination measure, the items comprising the relational aggression scale have yielded a Cronbach’s alpha of .87, indicating high reliability. The prosocial behavior scale consists of nine items, which have also been found to be highly reliable, with a Cronbach’s alpha of .91 (Werner & Crick, 1999). There is no published information on the validity of this instrument, a frequent problem in the measurement of relational aggression.

For the purposes of this study, the items on this measure were reworded to form a self-report measure (i.e., “When mad, retaliates by excluding others from activities” can be changed to “When I am mad, I retaliate by excluding others from activities”).

Self-Report Measure of Aggression and Victimization (Selected Scale)

Morales and Crick (1998) developed a 56-item instrument designed to assess
various forms of aggression and victimization (i.e., physical, relational) as well as
associated behaviors (i.e., exclusivity). This measure has 11 subscales, the most salient of
which is the romantic relational aggression subscale. Linder, Crick, and Collins (2002)
found that this subscale demonstrates marginal internal consistency, with a coefficient
alpha of .73. Similar to the previous instrument, there is also no published information on
the validity of this instrument.

*Alcohol Use Disorders Identification Test*

Alcohol use problems were measured using the Alcohol Use Disorders
Identification Test (AUDIT; Saunders, Aasland, Babor, & de la Fuente, 1993), a 10-item
screening instrument for alcohol use and misuse. The AUDIT has demonstrated high
internal consistency with use in college students, with coefficient alphas ranging from .89
to .94 (Shields, Guttmannova, & Caruso, 2004). Maisto, Conigliaro, McNeil, Kraemer,
and Kelley (2000) found that the AUDIT demonstrated concurrent validity with both the
Alcohol Dependence Scale and the Drinker Inventory of Consequences, with a
correlation of .65 for both instruments ($p < .01$). The AUDIT was also significantly
correlated with several other factors measured by the authors. The AUDIT yielded a
correlation of .47 with the number of days participant’s reported drinking over a 30 day
period, a correlation of .43 with the number of drinks they reported drinking each day
over a 30 day period, and a correlation of .49 with the number of heavy drinking days
over a 30 day period, all significant at $p < .01$.

*Drug Abuse Screening Test*

The Drug Abuse Screening Test (DAST-10; Skinner, 1982), a 10-item screening
instrument designed to assess drug use and misuse, will be used to identify drug use. The
DAST-10 has demonstrated strong psychometric properties (Maisto et al., 2000). Cocco and Carey (1998) found that the instrument demonstrates strong internal consistency, with an alpha coefficient of .86. They also found that the DAST-10 demonstrates acceptable temporal stability with an intraclass correlation of .71. The DAST-10 has also been found to demonstrate strong validity. Bohn, Babor, and Kranzler (1991) found that the DAST-10 was able to correctly classify 93% of participants when comparing diagnoses made by a combination of using the SCID, clinical observation, urine screens, and participant interviews. Additionally, they found no significant correlation between measures of alcohol use and scores on the DAST-10.

Self-Report Psychopathy Scale

The SRPS (Levenson, Kiehl, and Fitzpatrick, 1995) is a 26-item instrument designed to measure psychopathy in non-criminal populations. It uses a 4-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree). The SRPS was normed on college students, which likely minimizes the potential for range restriction seen when clinical traits are assessed in non-clinical populations. Levenson et al. (1995) designed the SRPS to be consistent with a two-factor model of psychopathy. The Primary subscale (the first 16 items) was designed to measure primary psychopathy, which is thought to describe individuals who are void of affective and emotional responses (Campbell & Elison, 2005; Levenson et al., 1995). This subscale has repeatedly demonstrated strong internal consistency, with coefficient alphas ranging from .80 to .88 (Brinkley, Schmitt, Smith, & Newman, 2001; Campbell & Elison, 2005; Levenson et al., 1995; Lynam, Whiteside, & Jones, 1999). The Secondary subscale (the last 10 items) was designed to measure secondary psychopathy, which reflects individuals who engage in antisocial
behaviors but still demonstrate intact emotionality and affectivity (Campbell & Elison, 2005). However, the internal consistency for the Secondary subscale is considerably lower than that of the Primary subscale, with coefficient alphas ranging from .53 to .74 (Brinkley et al., 2001; Campbell & Elison, 2005; Levenson et al., 1995; Lynam et al., 1999). Since the internal consistency for the Secondary subscale is marginal at best, only the primary scale will be used in this study.

**Aggression Questionnaire**

The Aggression Questionnaire (Buss & Perry, 1992) is a 29-item instrument designed to measure overall aggression as well as various components of aggression, including physical aggression, verbal aggression, anger, and hostility. To that end, the Aggression Questionnaire yields five scores: a total score, and a score for each of the components already mentioned. This structure has been supported by both an exploratory and a confirmatory factor analysis (Buss & Perry, 1992). The internal consistency for the total score is .89, with coefficient alphas for the subscales ranging from .72 to .85. Further, the Aggression Questionnaire demonstrates strong temporal stability, with a coefficient alpha for the total score of .80 and coefficient alphas ranging from .72 to .82 for the subscales. The Aggression Questionnaire also demonstrated significant correlations with peer nomination measures of aggression.

**Procedure**

Undergraduate students currently enrolled in psychology courses at The University of Southern Mississippi were recruited through Sona Systems, the Department of Psychology’s web-based research system. Potential participants were told that they were participating in a study of aggression in college students. Additionally, they were
informed that participation was expected to take approximately one hour and that they would be awarded one research credit for their participation. Those who agree to participate were provided with a link to an online data collection site (www.psychsurveys.org) that provided them access to the instruments after they have read and electronically signed the consent form (see Appendix B). Participants completed the surveys in a random order as allowed by www.psychsurveys.org.

**Statistical Analyses**

Following data collection, the data set was randomly divided into two groups. A confirmatory factor analysis was conducted on the first group. Goodness of fit was determined by the Tucker-Lewis index and the root mean square error of approximation (RMSEA). Since the initial factor analysis supported the factor structure reported by Crothers et al. (2008), it was reconfirmed using the second group (H1) to provide additional support for the factor structure.

Next, the internal consistency of the YASB subscales was assessed via coefficient alpha. Convergent validity (H2a) was assessed via correlations between the score of the relational aggression on the YASB and the relational aggression scale of the Self-Report of Relational Aggression/Victimization Measure as well as the social aggression score on the YASB and the same scale on the Self-Report of Relational Aggression/Victimization Measure. Similarly, convergent validity was also determined by the correlations between the relational aggression scale on the YASB and the relational aggression items on the adapted Relational Aggression Peer Nomination Instrument as well as between the social aggression scale on the YASB and the relational aggression items on the same instrument (H2b). Finally, convergent validity was assessed by comparing the correlations between
the interpersonal maturity scale on the YASB and the prosocial items on the adapted Relational Aggression Peer Nomination Instrument (H2c).

Divergent validity was determined by comparisons of these correlations and the correlation of the social aggression scale on the YASB and the total score on the Aggression Questionnaire using Fisher’s Z transformation (H3a). Divergent validity was also assessed by comparing the above mentioned correlations between measure of relational aggression and the relational aggression scale of the YASB with the total score on the Aggression Questionnaire, also using Fisher’s Z transformation (H3b).

Finally, evidence for concurrent validity was determined by the correlation between the relational aggression score on the YASB and the total score on the DAST-10, the AUDIT, and the SRPS (H4a) as well as the correlation between the social aggression score on the YASB and the total score on the DAST-10, the AUDIT, and the SRPS (H4b).
CHAPTER III

RESULTS

Preliminary Analyses

Means, standard deviations, minimums and maximums were computed for all instruments (see Table 1). Additionally, in order to ensure adequate reliability, internal consistencies were computed for all instruments, including the YASB, which addresses research question five.

Table 1

*Alphas, Means, Standard Deviations, Minimums, and Maximums for All Instruments*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>$\alpha$</th>
<th>$M$</th>
<th>$SD$</th>
<th>MIN</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. YASB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational Aggression</td>
<td>.75</td>
<td>10.96</td>
<td>3.88</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Social Aggression</td>
<td>.80</td>
<td>10.21</td>
<td>4.19</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Interpersonal Maturity</td>
<td>.74</td>
<td>15.60</td>
<td>3.18</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>2. Adapted Relational Aggression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Peer Nomination Instrument</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational Aggression</td>
<td>.86</td>
<td>15.17</td>
<td>6.93</td>
<td>7</td>
<td>44</td>
</tr>
<tr>
<td>Prosocial Behaviors</td>
<td>.92</td>
<td>42.58</td>
<td>9.79</td>
<td>8</td>
<td>56</td>
</tr>
<tr>
<td>4. SRPS</td>
<td>.72</td>
<td>32.58</td>
<td>6.22</td>
<td>19</td>
<td>48</td>
</tr>
<tr>
<td>5. RA Subscale of the Self-Report Measure of Aggression and Victimization</td>
<td>.81</td>
<td>11.24</td>
<td>5.57</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>6. Aggression Questionnaire</td>
<td>.93</td>
<td>81.46</td>
<td>30.88</td>
<td>28</td>
<td>189</td>
</tr>
<tr>
<td>7. DAST-10</td>
<td>.78</td>
<td>0.84</td>
<td>1.57</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>8. AUDIT</td>
<td>.87</td>
<td>14.66</td>
<td>5.05</td>
<td>10</td>
<td>34</td>
</tr>
</tbody>
</table>

*Note.* YASB = Young Adult Social Behavior Scale; SRPS = Self-Report of Psychopathy Scale; RA = relational aggression; DAST-10 = Drug Abuse Screening Test-10; AUDIT = Alcohol Use Disorders Identification Test.
The alpha coefficients for each instrument were above .70, indicating adequate internal consistency for all instruments, including the three factors of the YASB. In addition, respondents reported a relatively low level of relational and social aggression ($M_s = 10.96$ and $10.21$ on subscales where possible scores ranged from 5 to 25) and a relatively high level of interpersonal maturity ($M = 15.60$ on a subscale where possible scores ranged from 4 to 20). Crothers and colleagues (2008) did not report the means for the initial sample.

Primary Analyses

For the sake of clarity, each hypothesis will be reproduced here, followed by the statistical results.

*Hypothesis 1: The 3-Factor Structure of the YASB (i.e., Social Aggression, Relational Aggression, and Interpersonal Maturity) Reported by Crothers and Colleagues (2008) will be Confirmed in a New Sample.*

The structure of the YASB reported by Crothers and colleagues (2008) was tested via confirmatory factor analysis (CFA). Specifically, the hypothesized structure included three subscales: relational aggression (items 1, 2, 9, 11, and 13), social aggression (items 4, 5, 7, 8, and 12), and interpersonal maturity (items 3, 6, 10, and 14). After removing 54 participants who fell outside the age range recommended by the authors of the YASB and examining file for missing data and outliers, the final data set ($N = 404$) was randomly split in half in order to allow for an exploratory factor analysis on the second half if the confirmatory factor analysis did not support Crother and colleagues (2008) model. The AMOS statistical package was then used to conduct a CFA on the first half. The model
was tested with least squares regression with within construct errors allowed to be correlated. The factors in the model were correlated (see Figure 1).

According to Hu and Bentler (1999), good model fit is indicated by TLI values of greater than .95. Additionally, a RMSEA value less than 0.06 is also considered to represent good model fit, according to Yu and Muthén (2002). The goodness of fit indices (see Table 2) found in this CFA support the 3-factor structure reported by Crothers et al. (2008). Since the CFA indicated a good fit, no rival models were examined. The standardized and unstandardized regression weights along with the squared multiple correlation (SMC) values, which range from .068 (Item 1) to .839 (Item 13) are provided in Table 3.

![Figure 1. The CFA Model.](image)

relagress = relational aggression, socaggress = social aggression, intermat = interpersonal maturity


Table 2

*Goodness of Fit Indices for Sample 1 and Sample 2*

<table>
<thead>
<tr>
<th></th>
<th>Sample 1</th>
<th>Sample 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi square/df</td>
<td>1.50</td>
<td>1.12</td>
</tr>
<tr>
<td>Goodness of Fit Index</td>
<td>0.95</td>
<td>0.96</td>
</tr>
<tr>
<td>Adjusted Goodness-of-Fit Index</td>
<td>0.90</td>
<td>0.92</td>
</tr>
<tr>
<td>Tucker-Lewis Index</td>
<td>0.97</td>
<td>0.99</td>
</tr>
<tr>
<td>Root Mean Square Error of</td>
<td>0.05</td>
<td>0.02</td>
</tr>
<tr>
<td>Approximation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*df = degrees of freedom*

Since the initial CFA supported the factor structure reported by Crothers et al. (2008), an additional CFA was conducted using the second half of the data to investigate the stability of the results of the initial CFA. Again, the goodness of fit indices supported Crothers’ and colleagues’ (2008) proposed structure (see Table 4). In fact, the goodness of fit indices were stronger in this sample, suggesting that 3-factor structure is an even better fit for this sample. The standardized and unstandardized regression weights and the squared multiple correlations for the second CFA are provided in Table 3. For this group, the SMC values ranged from .046 (Item 4) to .819 (Item 11).

Three items (1, 2, and 4) had lower standardized and unstandardized weights on both groups, indicating lower factor loadings for these items. The SMC values for these items were .106 or less on both CFAs, indicating that the factor (i.e., relational aggression) accounted for less than 11% of the variance in each of these items. Thus, these three items do not appear to be as strongly related to their parent scales as the other
11 items on the YASB. Nevertheless, given that the 3-factor model was a good fit across fit indices for both CFAs, post-hoc modifications were not needed.

Table 3

*Standardized and Unstandardized Regression Weights for Initial CFA*

<table>
<thead>
<tr>
<th>Scale/Item</th>
<th>Standardized Weight</th>
<th>Squared Multiple Correlations</th>
<th>Unstandardized Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Aggression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 4 .325</td>
<td>.106</td>
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<td>8 8 .708</td>
<td>.507</td>
<td>.822</td>
<td></td>
</tr>
<tr>
<td>12 12 .891</td>
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<tr>
<td>Interpersonal Maturity</td>
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<tr>
<td>3 3 .483</td>
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<tr>
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<td>Relational Aggression</td>
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<tr>
<td>1 1 .261</td>
<td>.068</td>
<td>.277</td>
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</tr>
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<td>2 2 .311</td>
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<tr>
<td>13 13 .916</td>
<td>.839</td>
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</table>

As an additional point of analysis, correlations were computed between each of the factors of the YASB. Social aggression and relational aggression were found to be significantly, positively, and highly correlated while interpersonal maturity was found have a low, negative correlation with both social aggression and relational aggression (see Table 5). This data suggests that social aggression and relational aggression are related but separate constructs.
Table 4

*Standardized and Unstandardized Regression Weights for Second CFA*

<table>
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<tr>
<th>Scale/Item</th>
<th>Standardized Weight</th>
<th>Squared Multiple Correlations</th>
<th>Unstandardized Weight</th>
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<tr>
<td>13</td>
<td>.878</td>
<td>.771</td>
<td>.986</td>
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</table>

Table 5

*Correlations between Factors on the YASB*

<table>
<thead>
<tr>
<th></th>
<th>Social Aggression</th>
<th>Interpersonal Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Aggression</td>
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<td>-.37</td>
</tr>
<tr>
<td>Social Aggression</td>
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<td>-.38</td>
</tr>
</tbody>
</table>

Hypothesis 2 was divided into three subsets of hypotheses, each addressing convergent validity.
Hypothesis 2a: The Relational Aggression Subscale and the Social Aggression Subscale on the YASB will be at Least Moderately Related to the Relational Aggression Subscale of the Self-Report Measure of Aggression and Victimization.

The relational aggression subscale of the Self-Report Measure of Aggression and Victimization was moderately correlated with both the RA subscale ($r = .39, p < .001$) and the SA subscale ($r = .39, p < .001$). Thus, Hypothesis 2a was supported.

Hypothesis 2b: Both the Social Aggression and the Relational Aggression Subscales will be at Least Moderately Related with the Relational Aggression Items of the Adapted Relational Aggression Peer Nomination Instrument.

Convergent validity was also addressed by comparing the relationship between the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument and both the RA subscale and the SA subscale of the YASB. The items from the adapted Relational Aggression Peer Nomination Instrument were moderately correlated with both the RA subscale ($r = .46, p < .001$) and the SA subscale ($r = .45, p < .001$), providing support for Hypothesis 2b.

Hypothesis 2c: Scores on the Interpersonal Maturity Scale will be at Least Moderately Correlated with the Prosocial Items on the Adapted Relational Aggression Peer Nomination Instrument.

Convergent validity was also assessed by correlating the scores on the Interpersonal Maturity scale on the YASB with prosocial items on the adapted Relational Aggression Peer Nomination Instrument, which also demonstrated a moderate correlation ($r = .49, p < .001$), supporting Hypothesis 2c.

Hypothesis 3 focused on discriminant validity. It was divided into two parts.
Hypothesis 3a: The Relational Aggression Subscale on the YASB will be More Highly Correlated with the Total Score of the Relational Aggression Subscale of the Self-Report Measure of Aggression and Victimization and with the Relational Aggression Items of the Adapted Relational Aggression Peer Nomination Instrument Than with the Aggression Questionnaire, a Measure of General Aggression.

In order to assess for discriminant validity, the correlation between the RA subscale on the YASB with the RA subscale on the Self-Report Measure of Aggression and Victimization ($r = .46, p < .001$) was compared to the correlation between the RA subscale on the YASB with the Aggression Questionnaire ($r = .26, p < .001$), Fisher’s $z$ for dependent correlations was calculated as 4.13 ($p < .001$). This indicates that the RA subscale on the YASB was significantly more correlated with the RA subscale on the Self-Report Measure of Aggression and Victimization, providing support for this hypothesis.

Further support for discriminant validity was found when performing a Fisher’s $z$ for dependent correlations on the correlation between the RA subscale on the YASB and the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument ($r = .39, p < .001$) and the correlation between the RA subscale on the YASB and the Aggression Questionnaire ($r = .26, p < .001$). Fisher’s $z$ was calculated at 2.73 ($p = .003$), demonstrating that the RA subscale on the YASB is also significantly more correlated with the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument that it is with the Aggression Questionnaire.
Hypothesis 3b: The Social Aggression Subscale on the YASB will be More Highly Correlated with the Total Score of the Relational Aggression Subscale of the Self-Report Measure of Aggression and Victimization and with the Relational Aggression Items of the Adapted Relational Aggression Peer Nomination Instrument Than with the Aggression Questionnaire.

Hypothesis 3b also investigated the discriminant validity of the YASB by first comparing the correlation between the social aggression subscale on the YASB and the RA subscale of the Self-Report Measure of Aggression and Victimization ($r = .34, p < .01$) with the correlation between the social aggression subscale with the Aggression Questionnaire ($r = .23, p < .001$). Support for discriminant validity was found, with a Fisher’s $z$ of 2.30 ($p < .01$), indicating that the social aggression subscale on the YASB is significantly more correlated with the RA subscale of the Self-Report Measure of Aggression and Victimization than with the Aggression Questionnaire.

Finally, evidence for discriminant validity was found by comparing the correlation between the YASB’s social aggression subscale with the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument ($r = .45, p < .001$) with the correlation between the social aggression subscale and the Aggression Questionnaire ($r = .23, p < .001$). Fisher’s $z$ for dependent correlations was calculated to be 4.61 ($p < .001$), demonstrating the social aggression subscale on the YASB is significantly more correlated with the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument than with the Aggression Questionnaire.

Hypothesis 4 addressed concurrent criterion validity and was also divided into
two parts, one focusing on the relational aggression subscale and one focusing on the social aggression subscale of the YASB.

Hypothesis 4a: The Relational Aggression Subscale of the YASB will be Positively Correlated with Total Scores on the Alcohol Use Disorders Identification Test, the Drug Abuse Screening Test-10, and the Primary Scale of the Self-Report Psychopathy Scale.

Pearson’s $r$ for the correlation between the RA scale and the AUDIT was .21, .20 for the correlation between the RA scale and the DAST-10, and .47 for the correlation between the RA scale and the SRPS. All three correlations were significant at $p < .001$, providing support for Hypothesis 4a and evidence for criterion validity.

Hypothesis 4b: The Social Aggression Scale of the YASB will be Positively Correlated with Total Scores on the Alcohol Use Disorders Identification Test, the Drug Abuse Screening Test-10, and the Primary Scale of the Self-Report Psychopathy Scale.

Pearson’s $r$ for the correlation between the SA scale and the AUDIT was .26, with an alpha of .22 when comparing the SA scale with the DAST-10, and an alpha of .47 for the comparison between the SA scale and the SRPS. All three correlations were significant at $p < .001$, providing support for Hypothesis 4b and further evidence of criterion validity.
CHAPTER IV
DISCUSSION

The primary goal of this study was to contribute to the validation of a promising self-report measure of relational aggression among young adults, the Young Adult Social Behavior Scale (YASB; Crothers et al., 2008). Confirmatory factor analysis (CFA) was used in two separate samples to test the 3-factor structure reported by Crothers and colleagues (2008). The hypothesized factor structure was successfully confirmed using multiple fit indices (i.e., TLI, RMSEA, and GFI). Thus, the present study confirmed the presence of three internally consistent YASB subscales: relational aggression, social aggression, and interpersonal maturity. Using this factor structure, evidence for the convergent and divergent validity of the YASB subscales was provided through correlations with the relational aggression subscale of the Self-Report Measure of Aggression and Victimization (Morales & Crick, 1998), the relational aggression items of the adapted Relational Aggression Peer Nomination Instrument (Werner & Crick, 1999), the prosocial items on the adapted Relational Aggression Peer Nomination Instrument, and the Aggression Questionnaire (Buss & Perry, 1992). Finally, the present study provided evidence of concurrent criterion validity through correlations between the YASB and three constructs known to be related to relational aggression: psychopathic personality traits, problematic alcohol use, and the misuse of drugs.

Factor Structure and Reliability of the YASB

The YASB was selected for this study because it appears to be one of the most promising measures of relational aggression for use with young adults. In fact, it is one of the few available measures of this construct that was developed empirically and designed
specifically for use with young adults. Moreover, the YASB is one of the few measures with a factor structure that has been subjected to modern factor analytic procedures. By confirming the 3-factor structure reported by Crothers and colleagues (2008), the present study provided further support for the structure of this instrument in a college student sample. Initially, Crothers et al. (2008) used the Akaike Information Criterion (AIC; $X_m^2 + 2[q]$, where $q$ is the number of free parameters) to determine which of three proposed factors structures was the best fit and determined that a 3-factor model consisting of a relational aggression subscale, a social aggression subscale, and an interpersonal maturity scale provided the best fit based on AIC value. Additional fit indices included a Tucker-Lewis Index (TLI) value of .97, a root mean square error of approximation (RMSEA) of .023, and a comparative fit index of .98 (Crothers et al., 2008). The fit indices reported by Crothers and colleagues are all consistent with the results of both of the CFAs performed as part of this study, as the first CFA had a TLI value of .97 and a RMSEA of .50 and the second had a TLI value of .99 and a RMSEA of .02. These combined data suggest that the 3-factor model of relational aggression, social aggression, and interpersonal maturity is a good fit and that the model demonstrates stability across samples. Future research may wish to investigate the stability of the model across gender as well as other subgroups, perhaps including race and/or ethnicity.

One important implication of the factor structure confirmed here concerns the nature of the relationship between relational aggression, social aggression, and indirect aggression, as this continues to be debated in the literature (Coyne et al., 2006; Merrell et al., 2006). Archer and Coyne (2005) noted that “indirect aggression, relational aggression, and social aggression are superficially similar, particularly with respect to the
types of manipulative acts they involve” but that they “differ in their emphasis and how researchers using the three terms have conceptualized them,” (p. 212). They also state that relational aggression researchers argue that relational aggression is distinct from indirect aggression but that indirect aggression researchers argue that the term “relational aggression” is simply renaming the concept of indirect aggression. Archer and Coyne (2005) note that social aggression is typically used a parent-term encompassing both indirect and relational aggression. They conclude that while the emphases of each term are different, “they all measure comparable alternative strategies to physical aggression,” (p. 223) and they all have the same aim of harming the victim’s social standing. Other researchers argue that these constructs are related but distinct. Xie, Swift, Cairns, and Cairns (2002) note that social aggression and relational aggression are distinct in that social aggression refers solely to nonconfrontational behaviors while relational aggression includes both nonconfrontational and confrontational behaviors. They further note that the indirect aggression is also a distinct construct in that, unlike social and relational aggression, it does not make use of the social environment to inflict harm on the environment. The findings of the present study suggest that these three terms are referring to at least two separate constructs, labeled by Crothers et al. (2008) as relational aggression and social aggression, which are highly correlated ($r = .77, p = .000$). Thus, it would be beneficial to conduct further studies that psychometrically explore relational aggression and social aggression as separate constructs and to develop definitions of each construct based on the psychometric exploration. The results of this study suggested that the aim of social aggression is to harm another’s social standing or to increase one’s own social standing, as some of the items loading on that factor include behaviors such as
spreading rumors, breaking confidentiality to have a good story, and achieving maximum
damage by publicly confronting people. Relational aggression, on the other hand, seems
to refer more to behaviors designed to damage a specific relationship as it includes
behaviors such as giving the silent treatment, criticizing people, and intentionally
excluding people.

While Crothers and colleagues (2008) did not provide evidence of the internal
consistency of the YASB, the present study found acceptable internal consistency for the
three subscales. The alpha coefficients for the relational aggression subscale, social
aggression subscale, and interpersonal maturity subscale were .75, .80, and .74,
respectively. This suggests that the items on each of the subscales are measuring similar
characteristics, providing initial evidence for reliability.

Construct Validity of the YASB

By examining the YASB in the context of both general aggressiveness and other
measures of relational aggression, the present study provided evidence of divergent
validity. That is, the strength of the relationships between the YASB’s relational and
social aggression subscales with the adapted Relational Aggression Peer Nomination
Instrument (Werner & Crick, 1999) and the relational aggression items of the adapted
Relational Aggression Peer Nomination Instrument (Werner & Crick, 1999) were greater
than the relationships between the YASB subscales and the Aggression Questionnaire
(Buss & Perry, 1992). This suggests that the relational aggression subscale and the social
aggression subscale on the YASB are more related to other measures of relational
aggression than they are to a measure of general trait aggression. This suggests that these
subscales on the YASB effectively differentiate between relational aggression and general aggression.

This study also provided evidence for convergent validity, in that the relational aggression subscale and the social aggression subscale were both moderately correlated with two other measures of relational aggression. Further, the interpersonal maturity subscale was moderately correlated with the prosocial items on the adapted Relational Aggression Peer Nomination Instrument, providing additional evidence of convergent validity.

Future research may wish to further explore the construct validity of the YASB. For example, the present study indicates that relational aggression and social aggression are related but distinct constructs, as they are loading on two separate scales and are significantly correlated with one another ($r = .77, p = .000$). It would be worthwhile to expand the present research by comparing these two scales on the YASB with other scales of both relational aggression and social aggression, which could provide additional support for both the convergent and discriminant validity of the YASB.

Construct validity should also be investigated using multimethod assessment. The present study explored construct validity by comparing a self-report measure (YASB) to other self-report measures. It would be useful to explore convergent validity by comparing scores on the YASB to other methods of measuring relational aggression, such as peer nomination methods or observational methods. Similarly, it would also be useful to examine divergent validity in the same way. This type of psychometric investigation would easily lend itself to conducting a multitrait-multimethod matrix.
Criterion Validity of the YASB

Research on the adverse correlates of relational aggression among adults is still in its early stages, and our understanding of relational aggression among adults remains limited. However, prior research on relational aggression among adults has identified three consistent correlates: alcohol problems, drug problems, and psychopathic personality traits (Schmeelk et al., 2008; Storch et al., 2003; Werner & Crick, 1999). Thus, the present study chose to examine the concurrent criterion validity of the YASB by comparing it with widely used measures of these constructs. As predicted, the relational aggression and social aggression subscales were both positively correlated with alcohol misuse as measured by the AUDIT (Saunders et al., 1993), drug misuse as assessed with the DAST-10 (Skinner, 1982), and psychopathic personality traits as measured with the SRPS (Levenson et al., 1995), providing evidence of concurrent criterion validity. It is important to note that concurrent validity does not necessarily equate to predictive criterion validity. Further research investigating the predictive validity of the YASB is warranted. This research may include longitudinal studies that examine how the frequency and intensity of RA behaviors change from early childhood to adulthood, as it would be theoretically expected that young children that display high levels of relational aggression would continue to do so as adults. Further research may also want to examine the predictive validity of the YASB by administering the instrument to college freshman and then administering yearly assessments of relationship quality, interpersonal skills, empathy, and social responsibility.
Limitations

Despite clear support for the YASB, the present study was limited in some important ways that affect the interpretation of results. First, the sample was limited to students enrolled in an undergraduate psychology course at a relatively small, public university in the southern part of the United States. Another limitation is that 66.6% of the sample was female. Further, racial groups other than Caucasians and African Americans were vastly underrepresented in the sample. Additional studies with more males and a more racially representative sample are warranted as are studies that investigate the psychometrics of the YASB with a more diverse sample may improve the generalizability of the findings.

Another limitation of the study may be the self-report nature of the instrument. Some researchers suggest that individuals may underreport how frequently they are engaging in relationally aggressive behaviors in an attempt to present themselves as more socially desirable (Merrell et al., 2006). While there is some research suggesting that this is not a large concern (see Buss & Perry, 1992; Harter, 1982; Williams, Paulhus, & Hare, 2007), it is still worth investigating. Thus, additional studies may consider including a measure of social desirability or considering correlating scores on the YASB with measures of relational aggression that are not self-report (i.e., sociometric methods).

Implications and Directions for Future Research

The primary implication of the present study concerns the assessment of relational aggression among young adults. In a literature with competing definitions of relational aggression and no consensus about how to measure it reliably, the YASB is easy to recommend. With the additional support for the YASB provided by this study, it is hoped
that expanded use of this instrument will advance the study of relational aggression among young adults. It would be beneficial to start by using a more diverse sample to further determine the stability of the factor structure as well as the relationship between relational aggression and social aggression.

This study also provides support for three correlates of relational aggression previously identified in the literature—alcohol use, drug use, and psychopathic personality traits. This knowledge may inform interventions for individuals with these behaviors and can improve treatment prognosis. For example, alcohol and drug treatment programs frequently focus on the relationships between addicts and their families and close others. Therefore, it may beneficial to examine the frequency and intensity of relationally aggressive behavior within the context of these relationships and provide both addicts and family members with alternative ways of communicating. Additionally, a future study should examine the predictive nature between relational aggression and these correlates.

It may also be beneficial to examine the frequency and intensity of relationally aggressive behaviors within the context of familial relationships to help develop effective treatments for psychopathy. According to Verona, Patrick, and Joiner (2001), classic definitions of psychopathy include an emphasis on affective and interpersonal symptoms. Additionally, Patrick, Bradley, and Lang (1993) noted that there is an element of emotional detachment present in psychopathic individuals. These interpersonal symptoms and emotional detachment may be related to a pattern of relationally aggressive behavior, indicating that treating the relationally aggressive behavior may result in a decrease in psychopathy.
Additionally, given the relationship between relational aggression, drug and alcohol use, and psychopathy, it may be beneficial to use an instrument such as the YASB as a measure of treatment progress and outcome. Ideally, as drug and alcohol use decreases, the frequency of relationally aggressive behaviors would also decrease. Further exploration of implications for treatment and measuring treatment outcomes is warranted.

Directions for further research should include further exploration of the additional correlates of relational aggression previously identified in the literature, including overall emotional functioning, emotional functioning (Burton et al., 2007), features of other Cluster B personality disorders (Schmeelk et al., 2008), prosocial behaviors, and social maladjustment (Storch et al., 2003). Longitudinal studies of relationally aggressive behavior are also warranted, as displaying high levels of these behaviors in early childhood may result in an increase in psychopathy, drug use, and alcohol use later in life. If further research demonstrates a link between these, particularly if the link is predictive in nature, it has further implications for treatment—this research may support intervention programs at earlier ages. Thus, determining this relationship may have further implications for intervention and warrants psychometric exploration.

The present study did not explore the predictive validity of the YASB, so further research in this area is also warranted. As discussed above, it would be beneficial to study the predictive validity of the YASB by administering it to college freshmen and administering yearly follow-up surveys exploring empathy, social responsibility, relationship quality, and interpersonal skills.
Finally, the only evidence provided by the present study for the reliability of the YASB was the internal consistency of the subscales of the YASB. While this provided strong support for reliability, further research may wish to explore other forms of reliability, including test-retest reliability and inter-method reliability. Test-retest reliability will demonstrate if the YASB is consistent across time and will also help determine if relational aggression and social aggression are stable constructs. Ideally, measuring inter-method reliability will demonstrate that the YASB adequately measures relational and social aggression through the use of a self-report method, a point of disagreement in the current literature.

In summary, the present study contributes to the literature by providing sound psychometric information on the YASB (Crothers et al., 2008) as well as providing information about some of the correlates of relational aggression in college students. The results of this study have utility for both researchers and clinicians.
APPENDIX A
HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
Institutional Review Board
118 College Drive #5147
Hattiesburg, MS 39406-0001
Tel: 601.266.6820
Fax: 601.266.5509
www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 10012601
PROJECT TITLE: A Psychometric Investigation of the Young Adult Behavior Scale (YASB)
PROPOSED PROJECT DATES: 02/01/2010 to 07/31/2010
PROJECT TYPE: Dissertation or Thesis
PRINCIPAL INVESTIGATORS: Michelle Augustin
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Psychology
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 02/10/2010 to 02/09/2011

Lawrence A. Hosman, Ph.D. 2-10-10
HSPRC Chair
APPENDIX B

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT

Consent is hereby given to participate in the study titled: College Behavior Survey

**Purpose:** This study is being conducted to validate a new measure looking at certain behaviors occurring in social relationships.

**Description of Study:** This study is being conducted to understand more aggressive behaviors in college students. If you agree to participate, you will be asked to complete questionnaires online. Please read and follow the instructions on each questionnaire carefully. This study should take approximately 1 hour and will be worth 2 research credits.

**Benefits:** Although you will receive no direct benefit from participation in this study, your participation will help us to improve our understanding of factors associated with factors which influence social functioning.

**Risks:** There are no foreseeable risks to participating in this study. If you feel that completing these questionnaires has resulted in emotional distress, please stop and notify the researcher (Michelle Augustin at michelle.augustin@usm.edu). If you should decide at a later date that you would like to discuss your concerns, please contact Ms. Augustin or Dr. Dahlen (Eric.Dahlen@usm.edu) at (601) 266-4601. Alternatively, you may contact one of several local agencies, such as:

- University Counseling Center
  - 200 Kennard Washington Hall
  - Phone: (601) 266-4829
- Community Counseling and Assessment Clinic
  - Owings-McQuagge Hall Rm. 202
  - Phone: (601) 266-4601
- Pine Belt Mental Healthcare Resources
  - Phone: (601) 544-4641

**Confidentiality:** These questionnaires are intended to be anonymous and you are asked not to provide your name on any of the forms you will be completing, except for this consent form. The information you provide will be kept strictly confidential. Names on this consent form will not be associated with questionnaires in any way. If significant new information relating to this study becomes known which may relate to your willingness to continue to take part in this study, you will be given this information.

**Subject’s Assurance:** Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted), the researchers will take every precaution consistent with the best scientific practice. Your participation
is completely voluntary, and you may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning this research should be directed to Michelle Augustin (michelle.augustin@usm.edu) or Eric Dahlen, Ph.D. (Eric.Dahlen@usm.edu). This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406. The Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001.

Consent to Participate: I consent to participate in this study, and in agreeing to do so, I understand that:

1. I must be at least 18 years of age to participate.
2. I am being asked to complete a set of questionnaires, which will take approximately 1 hour and for which I will receive 1 research credit.
3. All information I provide will be used for research purposes and will be kept confidential.

I understand that my participation in this research is voluntary. If I decide to participate in the study, I may withdraw my consent and stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.

I have read and understand the information stated, am at least 18 years of age, and I willingly sign this consent form. A copy can be printed by clicking on file at the top left and choosing print from the menu.

__________________________________________________________________________
(Subject name printed)

__________________________________________________________________________
(Subject signature)          __________

Date
APPENDIX C

MEASURES

Demographic Questionnaire

Age: ______

Classification: ____ Freshman ____ Sophomore ____ Junior ____ Senior ____ Other

Race/ethnicity: ____ Caucasian ____ African American ____ Latino/Latina ____ Asian
____ Biracial ____ Indian ____ Native American

Major: __________________________________________

Please list any clubs, activities, or sports teams you belong to:
REFERENCES


measure the same constructs as Hare’s psychopathy checklist-revised. *Personality and Individual Differences, 31*, 1021-1038.


considerations for health care practitioners. Holistic Nursing Practice, 16, 7-15.


Social Development, 2, 248-266.


