

THE RELATIONSHIP BETWEEN FRIENDSHIP MAINTENANCE, FRIENDSHIP
QUALITY, AND COPING ON FIRST SEMESTER COLLEGE STRESS

by

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ABSTRACT

The transition to college can be associated with high levels of stress, especially during the first semester of college. Maintaining friendships, friendship quality, and coping can all influence a student's perceived stress. This study investigated the relationship between friendship maintenance, friendship quality, and coping on perceived stress during the first semester of college, while controlling for gender, ethnicity, length of friendships, and types of friendships (i.e., same-sex and opposite-sex). Participants completed online questionnaires measuring friendship maintenance, friendship quality, coping strategies, and perceived stress during the first semester of college. Results indicate that only coping (i.e., adaptive and maladaptive) and gender predict perceived stress during the first semester of college. Limitations are discussed.

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CHAPTER ONE

LITERATURE REVIEW

In adolescence, friendships are important sources of support when coping with stress. During their first semester of college, stress may be particularly high. This study assessed the relationship between friendship maintenance, friendship quality, and coping, on the one hand, and stress during the first semester of college, on the other hand.

Before reviewing the literature on friendship maintenance, friendship quality, coping, and stress during the first semester of college, some basic terms should be defined. Friendship can be defined as “a dyadic relationship with certain properties such as mutual attachment, commitment, and special concern for one another’s welfare” (Asher, 2011, p. 12). The definition of friendship quality includes the specific features of a friendship such as companionship, guidance, support, shared interests, and assistance in conflict resolution (Asher, 2011). Friendship quality can be classified either as high or low, with high friendship quality characterized by supportiveness, openness, intimacy, and low conflict, and low friendship quality characterized by little support, rivalry, and high conflict. According to Hartup and Stevens (1999), “friendship quality is related to the psychological well-being of children and adolescents and to the manner in which they manage stressful life events” (p. 78). Stress can be defined as experiencing strain, pressure, or worry in reaction to an event, person, or thing. Sources of stress during the first semester of college can include involvement in extracurricular activities, new academic demands, and new social challenges. Research bearing on how friendship quality and coping can affect stress stemming from the transition from high school to college is reviewed below.

Stress Related to the Transition to College

The transition from high school to college can be a life-changing experience, which presents both new opportunities and challenges. As previously mentioned, stress can be defined as experiencing strain, pressure, or worry in reaction to an event, person, or thing. In the transition to college, sources of stress can include maintaining established friendships, maintaining contact with family and friends, making new friends, academic demands, and time management. How well a student copes with such stressors can influence adjustment.

Salami (2011) examined the relationship between self-esteem, stress, emotional intelligence, social support, and adjustment in 250 first year college students. In this study, sources of social support were primarily family and friends. Stress and social support predicted college adjustment in that students who reported both high stress and high social support showed better adjustment to college than students who reported high stress and low social support (Salami, 2011). Overall, this study showed that the interaction between stress and social support predict a student's college adjustment during the first year of college.

Saldaña (1994) examined the relationship between the level of acculturation and various types of stress in a sample of Hispanic and English-speaking freshman college students. Specifically, Saldaña (1994) assessed the degree of college role stress, minority status stress, and psychological distress as a function of level of acculturation. This study showed minority status stress was associated more with the level of acculturation than was college role stress. However, psychological distress increased as college role stresses increased but was not associated with levels of acculturation (Saldaña, 1994).

Hashim and Zhiliang (2003) researched ethnic differences in perceived stress in a sample of non-Chinese college students who were attending colleges in China. These authors surveyed two groups, one that consisted of English-speaking African students and another group that consisted of Western students (North Americans, English-speaking Europeans, Australians, and New Zealanders). The two groups did not differ on perceptions of academic, interpersonal, and gender stressors, but differed with respect to the greatest perceived stressors. The Africans perceived difficulties in Chinese reading and writing, financial difficulties, and change in social activities to be the greatest stressors. However, the Western students perceived difficulties with serious arguments they encountered with instructors as the greatest stressors they encounter (Hashim & Zhiliang, 2003). Both African and Western students had difficulties with parents, roommate conflicts, and messy living conditions to be the greatest stressors they encountered. As for gender, both males and females experienced the highest levels of stress from daily strains (e.g., parent and roommate conflicts, financial difficulties, change in eating or sleeping habits, study skills); and the highest perceived stress came from academic and interpersonal stressors. However, males, as opposed to females, experienced more stress when missing too many classes, but females, as opposed to males, experienced more stress when they achieved a lower grade than anticipated and worked with people they did not know (Hashim & Zhiliang, 2003). Hashim & Zhiliang (2003) found that interpersonal, academic, and daily strains were perceived as stressors regardless of ethnicity and gender.

Compas, Waner, Slavin, and Vannatta (1986) examined the relationship between negative events, satisfaction with one's social support, and psychological symptoms in

first-year college students transitioning from high school to college. These authors assessed these three variables in June before the start of the first semester (Time 1), in September at the beginning of the semester (Time 2), and in December at the end of the first semester (Time 3). It was discovered that stress, psychological symptoms, and social support all interacted reciprocally at each time point. With respect to the current study, negative events increased in number as the semester progressed. To the extent that these negative events generated stress, this study demonstrated that the first semester of college can be associated with increased stress.

The studies just reviewed demonstrate that the transition to college can be associated with increased stress, regardless of factors such as ethnicity and gender. In the following sections, research bearing on the relationships between friendship maintenance, friendship quality, and coping, on the one hand, and stress, on the other hand, are reviewed.

Friendship Maintenance and Stress

The maintenance of friendships can be an issue as a student transitions from high school to college. Friendship maintenance can be defined as “behaviors that individuals engage in to maintain acceptable levels of satisfaction and commitment” within a relationship (Oswald, Clark, & Kelly, 2004, p. 418). Maintaining a friendship requires occasional contact with the other person and exhibiting high friendship quality traits such as supportiveness, openness, communication, and low conflict. During the transition from high school to college, friendships can be difficult to maintain because of a number of reasons including physical distance, newly acquired competing friendships, and competing activities. Adjustments are required during the transition with adolescents

moving out of their homes, leaving their parents, and leaving the world that they have known a majority of their lives. Maintaining friendships and adjusting to college and transitioning to college can be difficult and cause high levels of stress.

Oswald and Clark (2003) state that physical proximity can be an important factor in maintaining friendships during the transition to college. Close proximity allows a friendship to be based on “frequent interaction, communication, mutual peer groups, and participation in joint activities” (Oswald & Clark, 2003, p. 188). Oswald & Clark (2003) studied friendship maintenance as a function of physical proximity in first-year college students. These authors found that physical proximity was not an important factor in maintaining friendships, but frequent communication was associated with friendships that were maintained (Oswald & Clark, 2003). These results indicate that different factors, such as the frequency of communication between friends help maintain a friendship.

The amount of friendship maintenance behaviors exhibited seems to vary depending on the degree of closeness (e.g., casual friends, close friends, and best friends). Oswald et al. (2004) found that best friends engage in more maintenance behaviors such as positivity, supportiveness, openness, and interaction than close or casual friends, while close friends engaged in more maintenance behaviors than casual friends. Therefore, the closer the friendship, the more maintenance behaviors were demonstrated.

When determining if any gender differences exist in the relationship between friendships and stress, Rayle and Chung (2007) examined the relationships between stress, social support from friends and family, and mattering of college friends. Mattering was defined as the feeling that an individual counts or makes a difference. Although more males than females participated, the ethnic composition was roughly

equal between the two sexes. Rayle & Chung (2007) found that females reported a higher amount of social support, a higher amount of mattering to friends, and higher levels of stress than males. The more social support the students received and the more they felt as if they mattered to their friends, the less stress students experienced. These results indicate that the more students are supported by their friends, family, and their new college friends, the less stress they experienced, which likely helped with the transition to college. Social support from college friends predicted mattering to the college environment, such as other college students, college faculty, and college organizations (Rayle & Chung, 2007). Rayle & Chung (2007) also found that gender was related to levels of stress and social support in that it seemed to moderate the levels of stress experienced by the students. Females felt more social support, greater mattering, and greater levels of stress than males (Rayle & Chung, 2007). This helps show that different levels of stress may play a role in how well social support is utilized in the transition into college, and therefore affect their friendships and friendship quality.

Friendship Quality and Stress

Researchers have investigated a wide range of factors that affect stress, but friendship quality and its relationship to college stress has received much less attention. In fact, one study focused on stress and friendship quality and used high school students, not college students, as participants. The research reviewed in this section will focus on the relationship between stress and friendship quality by reviewing the only study that had stress and friendship quality as its main focus.

With respect to the relationship between friendship quality and stress, in the Compas et al. (1986) study described in the previous section, it was also reported that

satisfaction with one's social support was correlated negatively with psychological symptoms at and across all three measurement points. Moreover, when a regression analysis was performed, satisfaction with social support at Time 1 showed a significant negative relationship to psychological symptoms at Time 2 when Time 1 psychological symptoms were controlled for. A similar regression analysis involving Time 2 and Time 3 satisfaction with social support and psychological symptom scores found the same effect, but it was only marginally (i.e., $p = .07$) significant. These findings suggest that, to the extent that satisfaction with one's social support reflects friendship quality, the higher the friendship quality, the lower the psychological symptoms, including stress. Moreover, the higher the friendship quality prior to entering the first semester of college, the fewer psychological symptoms experienced during the first two weeks of the semester.

Ciairano, Rabaglietti, Roggero, Bonino, and Beyers (2007) investigated the relationship between family stress and friendship quality in a sample of high school students (i.e., adolescents). Family stress was assessed by one item that measured the adolescent's feelings of being stressed by their family life, and friendship quality was assessed by the Friendship Quality Scale and peer nomination. Ciairano et al. (2007) found that higher family stress was positively related to higher friendship quality, suggesting that during times of higher family stress (e.g., family problems or conflicts with parents), students seek support from their friends. High friendship quality also had an effect on well-being when there was low family stress. Friendship quality was higher within the context of high family stress. This shows friendship characteristics such as positive self-perception, higher success rate, and lower alienation from others occur

within the context of high family stress (Cairano et al., 2007). Cairano et al. (2007) also reported that friendship quality was positively related to the reciprocity within friendships. Higher closeness of friends, higher levels of self-disclosure, and higher levels of sharing thoughts and feelings with a friend all predicted higher reciprocity within friendships. Overall, Cairano et al. (2007) found that family stress and the reciprocity of a friendship are positively related with friendship quality in adolescents.

Friendship Quality, Gender, and Ethnicity

Friendship quality may vary by ethnicity and gender. Few studies reported on the effect of ethnicity and gender on the relationship between stress and friendship quality. Instead, most studies only investigate similarities and differences of both ethnic and gender friendships and friendship quality. This section will review research related to ethnicity and gender as it relates to friendship quality.

In an investigation of gender and ethnicity in friendships, French, Bae, Pidada, and Lee (2006) focused on the characteristics and interaction patterns of friendships of college students from the United States, Korea, and Indonesia. French et al. (2006) administered the Social Network Inventory to identify their friends, the Modified Friendship Quality Questionnaire to assess intimate disclosure and exclusivity in friendships, and the Rochester Interaction Inventory to rate the amount of friendship interaction. Regardless of nationality, participants had approximately the same number of close friends, a similar amount of interactions per day, similar same-sex members within their friendships, and approximately the same amount of same-sex friend interactions. With respect to friendship quality, Korean students had more intimate disclosure and overall disclosure than both Indonesian and America participants. Also,

Korean and American participants had more friendship longevity than participants from Indonesia. When viewing the structural aspects of friendship, Korean students showed more exclusivity than participants from both America and Indonesia while participants from Indonesia and the Americans reported larger group sizes of friends than Korean participants. With respect to the structural aspects of total interactions, Indonesian participants reported more interactions per day than both Korean and American participants (French et al. 2006). Across all three groups, women had more intimate disclosure and interactions per day with their friends than did the men (French et al., 2006). These results suggest that college students of different ethnicities share similarities and differences when it comes to friendship characteristics. Each country had approximately the same amount of friends and similar interaction types, but differences in exclusivity of friendships, longevity, and intimate disclosure were discovered among each culture.

Another study, conducted by Way and Chen (2000), focused on racial and ethnic similarities and differences among low-income adolescents who were African American, Latino American, or Asian American. Overall, Asian Americans reported lower levels of close and general friendship support than both African Americans and Latino Americans. The study also examined sex differences in friendship quality. Within each ethnic group, female participants were more likely to be friends with those of the same ethnic group. Close friendship support was different for all ethnicities in regards to gender, with females reporting higher levels of close friendship support than the males. Latino and African American females reported higher levels of general friend support than Asian American females. Latino American general friendship support showed gender

differences, where females reported more general friendship support than did the males (Way & Chen, 2000). Females had a higher level of close friendship support and had more racial/ethnic differences in their friendships than did the males for each group (Way & Chen, 2000). With respect to friendship quality, Way & Chen (2000) found that females report more support and interaction within friendships than did the males.

Oswald et al. (2004) also found gender differences and similarities in same-sex and opposite-sex dyadic friendships within their study on friendship maintenance. When viewing specific friendship qualities, such as supportiveness and openness, Oswald et al. (2004) discovered that female same-sex friendships were characterized by the qualities of supportiveness, openness, and interaction more than were male same-sex friendships. These authors also discovered that females were more supportive and open in their opposite-sex friendships than male participants were in their opposite-sex friendships (Oswald et al., 2004). These results mirror previous studies as to females having more intimate and more supportive friendships than males.

Other studies have found similar results with females reporting more intimate friendships and higher friendship quality than did males. Veniegas and Peplau (1997) compared friendship quality between men and women, as well as examined how power distribution can affect friendships. Veniegas & Peplau (1997) found that women gave higher ratings of friendship quality compared to men, and women rated friendships as having more self-disclosure and more rewards than men. These authors also found that both men and women had similar ratings for emotional closeness, liking, and satisfaction in their friendships. As for power distribution having an effect on friendship quality, Veniegas & Peplau (1997) discovered that both men and women “rated equal-power

friendships as more emotionally close, satisfying, enjoyable, disclosing, and rewarding than unequal-power friendships,” (p. 293) suggesting that balance of power is related to high friendship quality and is similar for both genders.

Overall, when comparing different ethnicities, friendship quality was different. Certain ethnicities (e.g., Korean, Latino American) showed more support and intimacy within their friendships, more longevity, and more interaction with friends than others (e.g., Indonesian and American). A majority of studies have shown that females as compared to males tend to report higher friendship quality as assessed by perceived intimacy and self-disclosure in their friendships (Oswald et al., 2004). Females also reported more interaction in their friendships than males. Even across different ethnicities, females reported more friendship support (French et al., 2006).

Buote et al. (2007) conducted a study examining first-year college students' adjustment to college as a function of newly developed friendships, taking into account friendship quality and friendship quantity through a quantitative and a qualitative component. In the quantitative component, it was found that new friendships were predictive of overall adjustment to college when considering friendship quality, regardless of gender and ethnicity (Buote et al., 2007). Openness, defined as an individual being accepting toward making new friendships, was also examined as to its association with friendship quality of new friendships and college adjustment. Buote et al. (2007) found that “more openness to new friendships was related to higher quality friendships” (p. 675), and “higher levels of quality of new friendships were associated with higher levels of university adjustment” (p. 676). As for the qualitative component, Buote et al. (2007) conducted structured interviews with each participant about their

newly developed friendships and how these friendships affected their adjustment to college. Buote et al. (2007) did not compare friendships between ethnicity and gender. Specifically, the authors discovered that physical proximity, amount of interaction, and similarity of interests lead to the formation of new friendships, and that new friendships helped reduce stress by “providing fun and enjoyment” (Buote et al., 2007, p. 684), which acted as a distraction from academic stress, and provided encouragement during difficult times.

Like friendship quality, stress can differ between gender and across ethnicity. There is a great deal of research revealing how stress can vary between males and females. Ethnicity and culture can also play a role in how an individual handles stressful events such as important life events.

Brougham, Zail, Menodza, and Miller (2009), while looking into how college students perceive and cope with stress levels, discovered that there were differences between males and females on perceived stress. Females reported more stress deriving from family relationships, finances, social relationships, and daily hassles than did the males. There were no differences between men and women on academic stress (Brougham et al., 2009). Both males and females reported similar coping strategies to these stressors, but they differed in how they perceived their overall stress levels with females reporting more perceived stress than did males.

In a sample of freshman college students, Hamilton and Fagot (1988) investigated sex differences in stressful events and coping with these events, but did not assess ethnic differences. The authors had participants rate stressors common to both males and females such as sleep, transportation, roommate problems, class issues, homework,

finances, family issues, academic performance, and disruptive noise. They also assessed stressors such as weight issues, peer pressure, concern with appearance, lying, and lack of punctuality. Hamilton & Fagot (1988) discovered that there were no significant differences overall, but females reported having more stress for weight issues and more overall stress than did the males.

College Students' Coping and Stress

During the transition from high school to college, stress can affect study habits, performance, and interpersonal life. Stressors include friends, family, keeping up with classes, joining clubs and organizations on campus, and alcohol/drug use. All of these can lead to irritability and worry. To manage stress, students use coping mechanisms. There are many coping mechanisms that can be useful, and some have been researched in studies focusing on stress, college students, and coping strategies.

Furlonger and Gencic (2014) looked at how on-campus and distance learning students coped with stress by assessing satisfaction and academic performance. Coping was indexed by satisfaction ratings (i.e., whether or not they were satisfied with their college experience) and academic performance. The coping strategies examined within this study were problem solving, seeking social support, and avoidance. With respect to group differences in the use of specific coping strategies, on-campus students used avoidance more than did off-campus students. There were no differences found between the groups for problem solving and seeking social support coping strategies, and these were the most used of the coping strategies (Furlonger & Gencic, 2014). Students who used problem solving as a coping strategy also sought social support as a means to cope with stress (Furlonger & Gencic, 2014). Also, it was found that students who used

“social support as a coping strategy experienced higher levels of stress” (p. 85-86) suggesting that when stress was high, students were more likely to seek out social support.

Robbins and Tanck (1995) studied college students and their use of formal and informal sources to help cope with stress. Formal social sources included therapists, counselors, or ministers, and informal social sources included family and friends. The authors found that friends were the most preferred for social support and were rated most helpful (Robbins & Tanck, 1995). Also, friends were found to be the most used out of all formal and informal social sources (Robbins & Tanck, 1995). These results suggest that college students prefer to use friends, as opposed to others, for social support and find them most helpful.

Oliver, Reed, Katz, and Haugh (1999) examined self-reports of college students seeking help due to stress and whether students preferred formal and/or informal sources of help. Oliver et al. (1999) found that discussions with a teacher and a co-worker were reported as being the most stressful sources and the least helpful. Students were more likely to use informal sources such as friends and family over formal sources such as teachers when it came to coping with their stress (Oliver et al., 1999). These results were similar to those discussed above by Robbins & Tanck (1995).

Denovan and Macaskill (2013) conducted a study on undergraduate college students and how they cope with their adjustment to college. Students mostly used problem-focused strategies to deal with difficulties and used different coping strategies such as acceptance, having social support, planning and preparedness, and optimistic thinking (Denovan & Macaskill, 2013). Adjusting to the university and coping with

stress was beneficial for the well-being of the student and required a support network (Denovan & Macaskill, 2013). Overall, this study found the most important coping mechanism for dealing with stress was a strong support group of friends, family, and faculty to help with the adjustment from high school to college.

Bland, Melton, Welle, and Bigham (2012) investigated coping strategies that may be related to high and low stress tolerance in millennial college students (i.e., those who were born after 1982). Bland et al. (2012) assessed 29 factors falling into three categories: protective factors, equal exposure or neutral factors, and risk factors. Protective factors consist of support, relaxation, listening to music, exercising, and extra-curricular activities. Equal exposure/neutral factors consist of quiet time, partying, taking a trip/vacation, using internet social networks, singing, playing an instrument, and writing in a journal. Risk factors consist of calling a friend, praying, taking study breaks, eating, sleeping, substance use, and cleaning the apartment (Bland et al., 2012). Stress tolerance was also assessed, and participants were classified as possessing either high or low stress tolerance. When these two groups were compared on the 29 factors, it was found that one protective factor, “felt supported by family, friends, and teachers,” (p. 372) significantly predicted high stress tolerance. The nine risk factors that were assessed (i.e., cleaned apartment, called a friend, prayed, used internet social networks, called mom, shopped, ate, used substances, and took study breaks) for low stress predicted low stress tolerance. Overall, Bland et al. (2012) found that, with the exception of seeking support from others, the coping mechanisms used by millennial college students in this study were not effective in coping with stress.

Brougham et al. (2009) conducted a study of how college students perceive and cope with stress and their overall stress levels. The coping strategies were grouped into either being problem-focused or emotion-focused strategies. Problem-focused strategies involve behavioral activities, such as planning and approach, and emotion-focused involves regulating emotion, such as avoidance and acceptance of emotions (Brougham et al., 2009). After assessing stress and coping, Brougham et al. (2009) discovered that emotion-focused strategies were used more for a greater amount of stressors than problem-focused strategies in both males and females. Overall, women used more coping responses, such as self-help, approach, and self-punishment, than men, but both genders used similar strategies to cope with stress they encountered (i.e., emotion-focused strategies).

Hamilton & Fagot (1988) studied how college males and females coped with daily stress by measuring their problem-solving behavior. They found that events that occurred more frequently and were not as stressful were solved with problem-solving behavior such as seeking help, taking control of the situation, and seeking social support. As the event became more stressful, less problem-solving behavior was used as a coping mechanism for both males and females, especially if it was interpersonally related such as roommate problems, intimate relationships, and peer pressure (Hamilton & Fagot, 1988).

Overall, it seems as if social support is relied on by college students to cope with stress and each gender copes with stress differently. Also, informal sources of social support are used more than formal sources as reported by Oliver et al. (1999) and Robbins & Tanck (1995). Family and friends were sought out more to help handle stress, as well as to help with higher levels of stress with academics and other stressors

associated with college. College students use interpersonal relationships to cope with stress more than other coping mechanisms.

Limitations of Current Research

A majority of studies mentioned above have found interesting results with respect to friendship quality, friendship maintenance, coping, and stress, but each of these studies also have limitations. One limitation is that none of the studies mentioned above discuss friendship quality, friendship maintenance, coping, and stress all within the same study. Some studies either focus on one or two of the factors, but not all four together. Typically, studies focused on stress and coping strategies or examined friendship in some way. There were very few studies that focused on friendship quality and stress. More studies need to examine the relationship between friendship quality and stress, such as maintenance and friendship quality, and stress.

Another limitation is that most studies reviewed did not cover is gender and ethnic differences. Although, gender differences and similarities are mentioned and analyzed in some studies, most studies do not report ethnic differences or similarities unless they are examining specific cultures. Also, gender differences may vary across ethnicity, but rarely has this issue been investigated. More research should focus on gender and ethnic differences and similarities in the relationships between friendship maintenance, friendship quality, and coping, on the one hand, and stress, on the other hand.

Current Study

The current study investigated the relationship between friendship maintenance, friendship quality, coping skills, on the one hand, and stress during the first semester of

college, on the other hand. Gender and ethnicity effects were investigated as well. Based on previous research, the hypothesis was as follows: High friendship maintenance, high friendship quality, and high coping will predict lower levels of perceived stress. No specific predictions are made concerning interaction effects nor for gender and ethnicity effects.

CHAPTER TWO

METHODOLOGY

Participants

College students attending Middle Tennessee State University (MTSU) were recruited through the Psychology Research Pool and other undergraduate classes via email and word of mouth, and received course credit for participation. All participants were between 18 years and 22 years of age.

Measures

Demographic Information. A demographic questionnaire was used to obtain some information on each participant: Gender, age, ethnicity, college grade, in-state or out-of-state student status, first semester at MTSU, the number of classes and hours taken that first semester, current cumulative GPA, employment status, whether the friend is same-sex or opposite-sex, and the length of friendship.

Friendship Maintenance Scale. Friendship maintenance was measured with the Friendship Maintenance Scale (Oswald, Clark, & Kelly, 2004), a 20 item questionnaire. The Friendship Maintenance Scale measures four subscales: Positivity, supportiveness, openness, and interaction. Using their best friend or closest friend who is not a significant other as a rating target, participants rated each item using an 11-point Likert scale with the following anchors: “never” (1) and “frequently” (11). The reliabilities (Cronbach alphas) of each subscale is as follows: Positivity (.92), supportiveness (.90), openness (.84), and interaction (.74) (Oswald et al., 2004).

McGill Friendship Questionnaire-Respondent's Affection (MFQ-RA). Friendship quality was measured with the McGill Friendship Questionnaire-Respondent's Affection

(Mendelson & Aboud, 2012), a 16 item questionnaire. The MFQ-RA has two subscales: Positive feelings for a friend and Friendship Satisfaction. Using their best friend or closest friend who is not a significant other as a rating target, participants rate the target using a 9-point Likert scale that ranges from -4 to 4 with four anchors: “Very much disagree” (-3), “somewhat disagree” (-1), “somewhat agree” (1), and “very much agree” (3). The total score is the mean of all 16 items. Higher scores represent higher friendship affection. The MFQ-RA has good internal consistency, with subscale Cronbach alphas ranging between .92 and .96 (Mendelson & Aboud, 2012).

Perceived Stress Scale (PSS). General perceived stress was measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). The PSS consists of 14 items that assess the respondent’s perception of stress experienced within the past month. Items are answered using a 5-point Likert scale that ranges from “never” (0) to “very often” (4) with higher scores indicating higher levels of perceived stress. The PSS has a reliability (i.e., Cronbach alpha) of .78 and is positively correlated with other measures of stress (Cohen et al., 1983). For the purposes of the current study, participants were asked to rate perceived stress for their first semester in college instead of the past month.

Revised COPE Inventory. The Revised COPE Inventory (R-COPE) (Zuckerman & Gagne, 2003) was used to assess participants’ coping strategies. Zuckerman and Gagne (2003) revised the original COPE Inventory (Carver, Scheier, & Weintraub, 1989) by shortening the original 60-item COPE Inventory that assesses 15 different coping strategies to a 40-item questionnaire that assesses 2 coping strategies. Zuckerman and Gagne (2003) named the revision the Revised COPE Inventory or R-COPE. The R-COPE assesses 2 coping strategies: Adaptive (i.e., approach, accommodation, and self-

help) and Maladaptive (i.e., avoidance and self-punishment). Respondents rate each coping strategy on a 4-point Likert scale ranging from “I usually don’t do this at all” (1) to “I usually do this a lot” (4). The reliabilities (Cronbach alphas) of each subscale range from .81 to .92 (Zuckerman & Gagne, 2003).

Procedure

Participants completed questionnaires through an online survey generator. Participants provided consent before completing questionnaires and provided their information following completion in order to obtain course credit. This identifying information was provided in a manner such that it could not be linked to the questionnaire data. All questionnaires used the time frame “during your first semester in college.” The rating target for the McGill Friendship Questionnaire and the Friendship Maintenance Scale was a nonromantic friend. Participants were encouraged to contact the researcher if they had any questions or concerns regarding the study.

CHAPTER THREE

RESULTS

Descriptive Statistics

A total of 307 college students participated in the study. Twenty-one percent of the sample ($n = 65$) were male while 79% ($n = 242$) were female. The average age of students in the sample was 19.28 years ($SD = 1.43$; $n = 307$). With regards to ethnicity, 58% ($n = 178$) were Caucasian, 27% ($n = 83$) were African American, and 15% ($n = 46$) were other ethnicity. Of the entire sample, a majority of students (57.3%; $n = 176$) have been friends with their best/close friend for more than 5 years. For most participants, the best/close friend was a same-sex friend (86%; $n = 264$). Table 1 contains means and standard deviations for the dependent variable (i.e., perceived stress) and the independent variables (i.e., friendship maintenance, adaptive coping, maladaptive coping, friendship quality, type of friendship, and length of friendship). Data were missing for some variables, as indicated in the column labeled n . Pearson correlations are shown in Table 2.

Regression Analyses

Multiple linear regression was used to predict perceived stress during the first semester of college using friendship maintenance, adaptive coping, maladaptive coping, friendship quality, gender, type of friendship, length of friendship, and ethnicity as predictors. An alpha of .05 was used. The overall model was found to be a significant predictor of perceived stress during the first semester of college, $F(9, 259) = 10.01$, $MSE = 2.13$, $p = .001$, Adjusted $R^2 = .23$. Table 3 contains the results for the individual predictors in the model. Because the model contains nine individual predictors, alpha

was adjusted to .006 using a modified Bonferroni procedure (i.e., $.05/9$). The results for three of the nine predictors were significant. Specifically, higher adaptive coping scores predicted lower perceived stress scores. Higher maladaptive coping scores and being female predicted higher perceived stress scores.

Table 1

Descriptive Statistics Among the Variables

	<i>M</i>	<i>SD</i>	<i>n</i>
Perceived Stress	2.50	0.52	297
Friendship Maintenance	8.91	1.37	293
Adaptive Coping	2.78	0.46	294
Maladaptive Coping	2.00	0.56	300
Friendship Quality	1.25	0.59	292
Type of Friendship (0 = Same; 1 = Opposite)			305
Same-Sex			264
Opposite-Sex			41
Length of Friendship			307
0-1 years (Coded as 0)			30
2-3 years (Coded as 1)			62
4-5 years (Coded as 2)			39
5+ years (Coded as 3)			176

Table 2

Pearson Correlations Among the Variables

	2	3	4	5	6	7
1. Perceived Stress	-.07	-.21**	.41**	-.16**	.02	-.07
2. Friendship Maintenance		.27**	-.06	.60**	-.04	.04
3. Adaptive Coping			-.06	.22**	.05	.04
4. Maladaptive Coping				-.06	.00	-.05
5. Friendship Quality					-.05	.07
6. Type of Friendship (0 = Same, 1 = Opposite)						-.27**
7. Length of Friendship						

** $p < .01$

Table 3

Linear Regression Model for Perceived Stress During the First Semester of College

Predictor	B	SE(B)	β	<i>p</i>
Constant	1.97	0.32		
Friendship Maintenance	0.01	0.03	0.03	.664
Friendship Quality	-0.12	0.06	-0.13	.049
Adaptive Coping	-0.20	0.07	-0.17	.003*
Maladaptive Coping	0.36	0.05	0.39	<.001*
Gender (0 = M; 1 = F)	0.25	0.08	0.19	.001*
Type of Friendship (0 = Same; 1 = Opposite)	0.04	0.09	0.02	.669
Length of Friendship	-0.01	0.03	-0.02	.679
African American Ethnicity (vs. Caucasian)	-0.07	0.07	-0.06	.291
Other Ethnicity (vs. Caucasian)	-0.07	0.08	-0.05	.407

**p* < .006

CHAPTER FOUR

DISCUSSION

Friendships can be important sources of support to cope with stress, especially during the first semester of college when stress can be particularly high. The transition from high school to college can be difficult depending on how well a student copes with so many stressors during this time of adjustment. Students are more likely to use friends, as opposed to other coping resources, to cope with college stress (Furlonger & Gencic, 2014; Oliver et al., 1999; Robbins & Tanck, 1995). Friendship maintenance, friendship quality, and coping can influence a student's perceived stress (Brougham et al., 2009; Buote et al., 2007; Ciairano et al., 2007; Furlonger & Gencic, 2014; Oswald et al., 2004). This study focused on which of these factors, along with length of friendship, type of friendship (i.e., same-sex or opposite-sex), gender, and ethnicity, predicted perceived stress during the first semester of college, a time of transition where stress may be particularly high.

Previous studies have investigated stress with some of the variables in this study but none of these previous studies considered all of the variables together. Ciairano et al. (2007) found that higher stress was related to higher friendship quality. Other studies investigated friendship maintenance and stress, where more social support and closer friendships were related to more friendship maintenance and decreased stress levels (Oswald et al., 2004; Rayle & Chung, 2007). With respect to gender, females with higher social support reported higher stress levels (Oswald et al., 2004; Rayle & Chung, 2007), and being female, as opposed to being male, was linked to using more coping strategies (Brougham et al., 2009; Hamilton & Fagot, 1988). As for ethnicity, some studies

reported mixed findings, while other studies did not investigate ethnicity at all (French et al., 2006; Hashim & Zhiliang, 2003; Way & Chen, 2000). Overall, friendship maintenance, friendship quality, coping, and gender seem to be related to stress.

The main purpose of the current study was to determine if friendship maintenance, friendship quality, and coping predicted perceived stress during the first semester of college, in addition to any gender and ethnicity effects. Out of the sample of 307 college students, only coping and gender predicted perceived stress during the first semester of college. Specifically, higher adaptive coping predicted lower perceived stress, and higher maladaptive coping predicted higher perceived stress. In other words, better coping strategies (i.e., adaptive coping) such as approach, accommodation, and self-help predicted lower stress, and negative coping strategies (i.e., maladaptive coping) such as avoidance and self-punishment predicted higher stress levels during the first semester of college. Generally, the better the student coped, the less perceived stress was reported.

Also, gender was found to be a significant predictor of perceived stress. Women reported higher levels of perceived stress than did men as previous studies reported (Oswald et al., 2004; Brougham et al., 2009; Hamilton & Fagot, 1988). Being a woman also correlated with higher friendship maintenance and friendship quality, consistent with previous findings (Cairano et al. 2007; Oswald et al., 2004; Veniegas & Peplau, 1997; Way & Chen, 2000). Unlike previous studies (Oswald et al., 2004; Rayle & Chung, 2007) that found friendship quality and friendship maintenance to predict perceived stress, the present study did not find such a relationship. Also, ethnicity was not a predictor of perceived stress during the first semester of college.

Limitations and Future Directions

There were several limitations to this study. First, even though a regression model was used to test which of the variables included in this study predicted perceived stress during the first semester of college, the interactions between variables were not tested. The sheer number of possible interactions precluded their being investigated. Nevertheless, there could be significant interactions between some of the variables. For example, Salami (2011) found a significant interaction between stress and social support that predicted college adjustment during the first year of college. By considering interactions, those variables that were not found as a significant predictor in this study could predict perceived stress with other variables. Therefore, future studies need to consider the interactions of the variables used in the current study to further determine any significant predictors of perceived stress during the first semester of college.

Second, the sample was limited in some ways especially with respect to gender. Specifically, approximately 80 percent of the sample consisted of women. If men were equally represented, the results might have been different.

Another limitation of this study is that all of the measures used to collect participant data were all self-reports, and self-reports of perceived stress during the first semester of college, for some participants, was retrospective. Responses from older participants may reflect, in part, memory distortions. For example, even though a participant may have experienced a great deal of stress and coped poorly during the first semester of college, the fact that they were still in school may have led some participants to minimize the amount of stress experienced during that first semester or exaggerate the amount of coping they used. Future investigations will want to restrict participation to

those who are in their first semester of college. This procedure could minimize any retrospective bias.

In conclusion, adaptive coping, maladaptive coping, and being a female were significant predictors of perceived stress during the first semester of college. Friendship maintenance, friendship quality, type of friendship (same-sex or opposite-sex), length of friendship, and ethnicity did not predict perceived stress. Further studies need to investigate the interactions between the variables used in this study to determine if there are any possible significant interactions that predict perceived stress, use a more equal representation of gender in the sample to determine any significance, and consider how the self-reports are used by the sample during the first semester of college.

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APPENDICES

APPENDIX A

Demographic Information

1. What is your sex?
 - Male
 - Female

2. What is your age?

3. What is your ethnicity?
 - Caucasian
 - African American
 - Other

4. What is your college class?
 - Freshman
 - Sophomore
 - Junior
 - Senior

5. When was your first semester in college? (Fall/Spring/Summer and year)

6. Are you an in-state or out-of-state student?
 - In-state
 - Out-of-state

7. How many classes did you take during your first semester in college?

8. How many hours did you take during your first semester in college?

9. What is your current cumulative GPA?

10. Are you employed?
 - No
 - Yes

Directions: Please choose a best friend or one of your closest friends that is not a significant other, and answer the following questions:

1. How long have you been friends with your best/close friend?

- 0-1 years
- 2-3 years
- 4-5 years
- 5+ years

2. Is your best/close friend the same sex (i.e., if you are a female, friend is a female) as you or opposite sex (i.e., if you are a female, friend is a male)?

- Same-sex friend
- Opposite-sex friend

APPENDIX B

Friendship Maintenance Scale

Directions: Please rate each question on how often you and your best friend or one of your closest friends do each of the following statements. Your best friends or one of your closest friends CANNOT be a significant other.

1. Express thanks when one friend does something nice for the other?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

2. Try to make each other laugh?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

3. Not return each other's messages?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

4. Try to be upbeat and cheerful when together?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

5. Reminisce about things you did together in the past?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

6. Try to make the other person "fee good" about who they are?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

7. Let each other know you accept them for who they are?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

8. Support each other when one of you is going through a difficult time?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

9. Let each other know you want the relationship to last in the future?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

10. Provide each other with emotional support?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

11. Share your private thoughts with each other?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

12. Repair misunderstandings?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

13. Give advice to each other?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

14. Show signs of affection toward each other?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

15. Have intellectually stimulating conversations?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

16. Do favors for each other?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

17. Visit each other's homes?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

18. Make an effort to spend time together even when you are busy?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

19. Celebrate special occasions together?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

20. Work together on jobs or tasks?

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 Frequently

APPENDIX C

McGill Friendship Questionnaire-Respondent's Affection (MFQ-RA)

Directions: The items on this form concern your feelings for your best friend or one of your closest friends. Your best friend or close friend is not a significant other. Imagine that the blank space in each item contains your best friend's name. With him or her in mind, decide how much you agree or disagree with the item. On the scale below each item, check the number that indicates how much you agree with the statement that describes your feelings. There are no right or wrong answers, because adults' feelings for friends differ from person to person. Just honestly describe your feelings for your friend.

1. I am happy with my friendship with _____.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

2. I care about _____.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

3. I like _____ a lot.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

4. I feel my friendship with _____ is a great one.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

5. I am satisfied with my friendship with _____.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

6. I feel my friendship with _____ is good.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

7. I want to stay friends with _____ for a long time.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

8. I prefer _____ over most people I know.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

9. I feel close to _____.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

10. I think my friendship with _____ is strong.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

11. I am pleased with my friendship with _____.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

12. I am glad that _____ is my friend.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

13. I hope _____ and I will stay friends.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

14. I would miss _____ if he/she left.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

15. I am content with my friendship with _____.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

16. I enjoy having _____ as a friend.

- 4
- 3 Very Much Disagree
- 2
- 1 Somewhat Disagree
- 0
- 1 Somewhat Agree
- 2
- 3 Very Much Agree
- 4

APPENDIX D

Perceived Stress Scale (PSS)

Directions: The questions in this scale ask you about your feelings and thoughts during your FIRST SEMESTER OF COLLEGE. In each case, you will be asked to indicate your response by selecting the best choice that represents HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like reasonable estimate.

1. How often were you upset because of something that happened unexpectedly?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

2. How often did you feel that you were unable to control the important things in your life?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

3. How often did you feel nervous and "stressed"?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

4. How often did you deal successfully with day to day problems and annoyances?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

5. How often did you feel that you were effectively coping with important changes that were occurring in your life?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

6. How often did you feel confident about your ability to handle your personal problems?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

7. How often did you feel that things were going your way?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

8. How often did you find that you could not cope with all the things that you had to do?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

9. How often were you able to control irritations in your life?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

10. How often did you feel that you were on top of things?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

11. How often were you angered because of things that happened that were outside of your control?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

12. How often did you find yourself thinking about things that you have to accomplish?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

13. How often were you able to control the way you spend your time?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

14. How often did you feel difficulties were piling up so high that you could not overcome them?

- Never
- Almost Never
- Sometimes
- Fairly Often
- Very Often

APPENDIX E

Revised COPE Inventory (R-COPE)

Directions: We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. Then respond to each of the following items by selecting an answer for each item, using the response choices listed below. Please try to respond to each item separately in your mind from each other item. Choose our answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU--not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

1. I take my time to express my emotions.

- I usually don't do this at all
- I usually do this a little bit
- I usually do this a medium amount
- I usually do this a lot

2. I let my emotions show.

- I usually don't do this at all
- I usually do this a little bit
- I usually do this a medium amount
- I usually do this a lot

3. I try to let out my feelings.

- I usually don't do this at all
- I usually do this a little bit
- I usually do this a medium amount
- I usually do this a lot

4. I allow myself to show how I feel about things.

- I usually don't do this at all
- I usually do this a little bit
- I usually do this a medium amount
- I usually do this a lot

5. I discuss my feelings with someone.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
6. I try to get emotional support from friends or relatives.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
7. I talk to someone about how I feel.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
8. I talk to someone to find out more about the situation.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
9. I concentrate my efforts on doing something about it.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
10. I take additional action to try to get rid of the problem.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot

11. I take direct action to get around the problem.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
12. I do what has to be done, one step at a time.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
13. I make a plan of action.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
14. I try to come up with a strategy about what to do.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
15. I think hard about what steps to take.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
16. I try hard to prevent other things from interfering with my efforts at dealing with this.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot

17. I try to be optimistic in spite of what happened.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
18. I work on feeling positive no matter what.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
19. I work on staying positive even when things look bad.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
20. I get used to the idea that it happened.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
21. I accept the reality of the fact that it happened.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
22. I try to see it in a different light, to make it seem more positive.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot

23. I look for something good in what is happening.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
24. I try to identify something else I care about.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
25. I say to myself "this isn't real."
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
26. I refuse to believe that it has happened.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
27. I pretend that it hasn't really happened.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
28. I admit to myself that I can't deal with it, and quit trying.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot

29. I give up the attempt to get what I want.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
30. I blame someone or something for what happened to me.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
31. I accuse someone of causing my misfortune.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
32. I try to forget the whole thing.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
33. I blame myself.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
34. I realize I brought the problem on myself.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot

35. I criticize or lecture myself.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
36. I see that I am at the root of the problem.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
37. I just think about my problem constantly.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
38. I return in my head again and again to what is troubling me.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
39. I relive the problem by dwelling on it all the time.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot
40. I brood over my problem nonstop.
- I usually don't do this at all
 - I usually do this a little bit
 - I usually do this a medium amount
 - I usually do this a lot

APPENDIX F

Middle Tennessee State University Institutional Review Board Approval Letter

IRB
INSTITUTIONAL REVIEW BOARD
 Office of Research Compliance,
 010A Sam Ingram Building,
 2269 Middle Tennessee Blvd
 Murfreesboro, TN 37129

**IRBN007 – EXEMPTION DETERMINATION NOTICE**

Wednesday, May 11, 2016

Investigator(s): Kelly Canute and Dr. James Tate
 Investigator(s) Email(s): kkc3a@mtmail.mtsu.edu
 Department: Psychology

Study Title: The Relationship Between Friendship Maintenance, Friendship Quality, and Coping on First Semester College Stress
 Protocol ID: #16-1273

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category (2) *Educational Tests*. A summary of the IRB action and other particulars in regard to this protocol application is tabulated as shown below:

IRB Action	EXEMPT from further IRB review***	
Date of expiration	NOT APPLICABLE	
Sample Size	150-300 (ONE HUNDRED AND FIFTY TO THREE HUNDRED)	
Participant Pool	College students attending MTSU	
Mandatory Requirements	Must collect informed consent.	
Additional Restrictions	Between 18 and 22 years of age	
Comments	NONE	
Amendments	Date	Post-Approval Amendments
	NONE	

***This exemption determination only allows above defined protocol from further IRB review such as continuing review. However, the following post-approval requirements still apply:

- Addition/removal of subject population should not be implemented without IRB approval
- Change in investigators must be notified and approved
- Modifications to procedures must be clearly articulated in an addendum request and the proposed changes must not be incorporated without an approval

- Be advised that the proposed change must comply within the requirements for exemption
- Changes to the research location must be approved – appropriate permission letter(s) from external institutions must accompany the addendum request form
- Changes to funding source must be notified via email (irb_submissions@mtsu.edu)
- The exemption does not expire as long as the protocol is in good standing
- Project completion must be reported via email (irb_submissions@mtsu.edu)
- Research-related injuries to the participants and other events must be reported within 48 hours of such events to compliance@mtsu.edu

The current MTSU IRB policies allow the investigators to make the following types of changes to this protocol without the need to report to the Office of Compliance, as long as the proposed changes do not result in the cancellation of the protocols eligibility for exemption:

- Editorial and minor administrative revisions to the consent form or other study documents
- Increasing/decreasing the participant size

The investigator(s) indicated in this notification should read and abide by all applicable post-approval conditions imposed with this approval. [Refer to the post-approval guidelines posted in the MTSU IRB's website.](#) Any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918 within 48 hours of the incident.

All of the research-related records, which include signed consent forms, current & past investigator information, training certificates, survey instruments and other documents related to the study, must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data storage must be maintained for at least three (3) years after study completion. Subsequently, the researcher may destroy the data in a manner that maintains confidentiality and anonymity. IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

[Click here](#) for a detailed list of the post-approval responsibilities.
More information on exempt procedures can be found [here](#).

APPENDIX G

Informed Consent Form

Informed Consent

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully and feel free to ask any questions you may have about this study and the information given below. You will be given an opportunity to ask questions, and your questions will be answered. Also, you will be given a copy of this consent form.

Your participation in this research study is voluntary. You are also free to withdraw from this study at any time. In the event new information becomes available that may affect the risks or benefits associated with this research study or your willingness to participate in it, you will be notified so that you can make an informed decision whether or not to continue your participation in this study.

Project Title: The Relationship Between Friendship Maintenance, Friendship Quality, and Coping on First Semester College Stress

Purpose of the study: You are being asked to participate in a research study because we want to determine the effect of friendship quality, coping, and friendship maintenance on stress across gender and ethnicity during the first semester of college.

Description of procedures to be followed and approximate duration of the study: If you decide to participate, you will complete questionnaires through this online survey. The questionnaires used in this study include: the McGill Friendship Questionnaire-Respondent's Affection, the R-COPE, the Perceived Stress Scale, the Friendship Maintenance Scale, and demographic information. The questionnaires should take about 30 minutes to complete.

Expected costs: No cost at all.

Description of the discomforts, inconveniences, and/or risks that can be reasonably expected as a result of participation in this study: There will be minimal risk conducted in this study. Participants will complete questionnaires and items about perceived stress, how they view their friendships, their use of coping mechanisms, and provide demographic information. There will be no questions on sensitive topics.

Compensation in case of study-related injury: MTSU will not provide compensation in the case of study related injury.

Anticipated benefits from this study: The potential benefits to science and humankind that may result from this study are obtaining information regarding the effect of friendship quality, coping, and friendship maintenance on stress during the first semester

of college; how stress, friendship quality, coping, and friendship maintenance may differ across gender and ethnicity as it relates to the first semester of college; and the potential benefits to you from this study are gaining an understanding of your stress and your friendships through your college transition.

Alternative treatments available: None

Compensation for participation: Extra/course credit will be given by the individual's professor.

Circumstances under which the Principal Investigator may withdraw you from study participation: If you are not at least 18 years old and a college student between the ages of 18 and 22 attending Middle Tennessee State University.

What happens if you choose to withdraw from study participation: No extra/course credit will be credited to the student and no information provided by the individual will be used in the data analyses.

Contact Information: If you should have any questions about this research study or possible injury, please feel free to contact Kelly Canute at 205-534-8113 or my Faculty Advisor, Dr. James Tate at 615-898-5452.

Confidentiality: All efforts, within reason, will be made to keep the personal information in your research record private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, if you or someone else is in danger or if we are required to do so by law. At the end of the study, all personal information and data linked to the participant will be de-identified to ensure confidentiality.

STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS STUDY: I have read this informed consent. I understand each part of the document, all my questions have been answered, and I freely and voluntarily choose to participate in this study.

By completing this survey, you acknowledge and give your consent.