Homesickness in College Students: The Moderating Effect of Religiousness on the Relationship between Homesickness and Maladjustment

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ABSTRACT

This study examined the moderating role of religiousness in relationship between homesickness and depression, alcohol use, and risky sexual behaviors in freshmen college students. Data were collected on 312 freshman (195 female, 117 male, mean age = 18 years). Religiousness was found to moderate the relationships between homesickness and depression and alcohol use; however, the moderation was dependent on the domain of religiousness measured. For the relationship between homesickness and depression, positive religious coping served as a protective factor, while organizational religiousness, private practices, and global religiousness functioned as risk factors. For the relationship between homesickness and alcohol use, private practices served as a protective factor, while personal religiousness was a risk factor. Religiousness had no impact on the relationship between homesickness and sexual behaviors. Results highlight the need for domain-specific religiousness measures, and for an increase in awareness of the role religiousness can play in an individual's adjustment to college.

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1.0 - Introduction

Homesickness is an ailment that affects a great number of college students, both in the United States and abroad. There is a lack of literature on homesickness and related psychological constructs for its occurrence, resulting in a substantial gap in researchers' understanding of the phenomena. Advances in research on this topic may aid in both the development and improvement of treatments, helping students to be more successful academically and socially, which could result in lower college transfer and dropout rates. The purpose of the current study is to examine one specific protective factor, religiousness, and how it affects the relationship between homesickness and three negative outcomes (depression, substance use, risky sexual behaviors). Additionally important to the study is the use of multiple measures of religiousness. Religiousness research has suffered from a lack of theoretical backing, relying mostly upon single-measure items which may not always be the specific reason or way religiousness is involved. Thus, this research will advance the methodological approach to religiousness as well as provide a more precise and meaningful understanding of what specific aspect(s) of religiousness is involved in buffering homesickness' negative results.

The majority of high school graduates in the United States attend a college, whether that school is a two-year or four-year institution (Davis & Bauman, 2008). For many of these students this will be their first prolonged period away from home (Beck, Taylor & Robbins, 2002). While one leaves for college at a natural time of separation in life, the sudden departure from normality and familiarity can challenge even the most independent young adults. Estimates vary as to the exact percentage of students who suffer from homesickness, with estimates ranging from 19-91% (Thurber, Walton, & the Council on School Health, 2007), demonstrating the inconsistent nature by which the occurrence has been studied.

1.1 - Homesickness and maladjustment outcomes

Homesickness has been defined as "distress and functional impairment caused by an actual or anticipated separation from home and attachment objects such as parents" (Thurber, et al., 2007). Symptoms of homesickness have been documented to include maladjustment outcomes such as depression, substance use, and risky sexual behaviors (Fisher, Murray & Frazer, 1985; Zaleski, Levey-Thors, and Schiaffino, 1998 for a

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review). For example, in a sample of 101 first year college students, Fisher, Murray and Frazer (1985) found that 60% of participants reported homesickness. This study is particularly notable because it was one of the first to conceptualize homesickness as having multiple dimensions. Their findings indicated that both the distance of relocation and features of the new environment combined to evoke the feeling of homesickness. Similarly, in a study of 280 British students, Stroeb, van Vliet, Hewstone and Wills (2002) found a significant path from homesickness to depression, and homesickness mediated the relationship between relocation and depression.

Many treatments for homesickness have been suggested, including booklets and brochures (Thurber, 2005), practice time away from home (Thurber, 2005; Thurber, Walton, & the Council on School Health, 2007), establishing a network of friends and acquaintances away from home, and providing coping instruction (Thurber, Walton, & Council on School Health, 2007). This large variety of strategies may be in large part due to the many differing maladjustment outcomes to which homesickness has been linked.

The body of literature on homesickness in college students has generally focused on frequencies of occurrence, treatments, and specific academic outcomes due to homesickness. Variance in the estimates of occurrence and severity of symptoms indicate the involvement of moderating and mediating variables. Researchers have failed to examine these moderating and mediating variables, leaving a substantial gap in our understanding of the phenomenon. Understanding mechanisms involved in the link between homesickness and adjustment will be crucial in developing future effective and comprehensive prevention programs as well as intervention treatments.

Additionally problematic in the study of homesickness is the fact that strong cross-cultural differences have been seen. This can make the understanding of homesickness even more complex, especially when attempting to determine exactly what proportion of students suffer as well as the degree to which it affects them. For example, in a study of 69 Turkish and 75 American students residing in their native countries, Carden and Feicht (1991) found 77% of Turkish students indicating homesickness, while just 19% of Americans did. Additionally, Americans were significantly lower than Turkish students on ratings of intensity of symptoms.

1.2 - Religiousness and homesickness

The link between religiousness and homesickness has not been extensively studied especially as it applies to college students. A simple EBSCO host search of Psych Articles and Psychology/Sociology databases with the terms "homesickness" "college" and "religion" offers a mere four results, only one of which is an empirical article (Retrieved April 14, 2009, from Psychology/Sociology databases on EBSCO host). Additionally, a similar search for "religion" and "homesickness" returned just ten results, only four of which were empirical and none of which were relevant for the current study.

Johnson and Hayes (2003) found that those higher in religious distress are less likely to seek help for homesickness, but at the same time homesickness may be associated with religious or spiritual distress. However, they examined the correlation between homesickness and help-seeking as opposed to using religiousness as a moderator. While there has not been a great deal of literature on homesickness and religiousness, some have attempted to use religiousness to curb the effects of homesickness. One guide to dealing with homesickness even included "Get ready to grow in your faith" as one of their six steps for dealing with homesickness (Barnhill, 2001). This guide was not, however, based on any empirical evidence.

Indeed, there are only two studies that look at religiousness as a beneficial factor for college students during adjustment within the religiousness literature. In examining a group of 268 undergraduates, Richards (1991) found a main effect for intrinsic religiousness in lessening depression among first semester college students. Additionally relevant is the finding that religious students reported less separation anxiety from parents as opposed to nonreligious students. However, this study used a two-by-two design by splitting individuals into high- and low-intrinsic religiousness as opposed to a moderational approach. Despite this methodology, their findings are consistent with prior research demonstrating that religiousness is a beneficial factor for many at-risk behaviors and negative outcomes.

1.3 - Sexual behaviors and alcohol use among college students

Substance use and risky sexual behavior have been linked to each other in many previous studies on college students in the United States. Poulson, Bradshaw, Huff,

Peebles and Hilton (2008) examined this link in 155 participants at a historically Black college. They found that alcohol and marijuana consumption were both related to risky sexual behaviors. In their sample, eighty-three percent of participants reported having sex at one point in life, 73% as being sexually active at the time, and more than half of participants reported unprotected sex. While participants largely reported strong religious beliefs, these high levels of religious belief were not related to their behaviors towards sex and alcohol. This finding is consistent with prior investigations reporting that African Americans report being highly religious yet do not experience the same protective factors from religiousness that other ethnicities experience. Currently, little is known as to the differential protective effects of religiousness across different ethnic groups.

While few studies examined homesickness and sexual behaviors, more studies have examined sexual behaviors in the collegiate experience, suggesting that they are prevalent and problematic among college students. Siegel, Klein and Roghmann (1999) examined differences in sexual behavior across collegiate years. Seventy-two percent of all participants indicated that they had sex at some point in their life, which the authors state as consistent with other collegiate samples. Sexual experience steadily increased over the four years. Another interesting finding was that the mean age of first sexual intercourse was 16.8 in both men and women, again a finding consistent with prior studies. This is notable because it indicates that most college students first became sexually active before entrance to college, indicating that the transition could potentially change their behaviors, as has been suggested by others (Worthington, 1989).

While sexual behavior in general may be of some concern, risky sexual behaviors that may increase the prevalence of HIV/AIDS and STDs are of particular interest. In a study of 284 college students, Ratliff-Crain, Donald and Dalton (1999) found 60 percent of participants to be sexually active. Additionally, most participants had a high knowledge of HIV/AIDS; however, it did not relate to the amount of risky sexual behavior in which they were engaged. This information is troubling, as education on the topic seems not to have a great effect on individuals, and education has been a focal point for attempts at reducing risky sexual behavior in a variety of interventions, including homesickness.

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Critical to the current study is the work of Zaleski, Levey-Thors, and Schiaffino (1998). In their longitudinal sample, college freshmen were questioned at two different times on a variety of measures. During time 1 data collection, measures included private religiousness, perceived social support from family and friends, and future time perspective, while at time 2 participants completed measures of self-reported illness, recent life events, symptom severity, alcohol use and risky sexual behavior. Most importantly, students who felt a decreased sense of religious identification were more likely to engage in risky sexual behaviors (defined as frequency of intercourse, not using a condom while having sex, sex after drinking alcohol or drug use, and number of sexual partners since time 1 data collection). This study adds much to our understanding of both religiosity and sexuality among college students; however, it leaves substantial gaps in our knowledge of the role of religiousness in coping with homesickness. Instead of directly measuring homesickness or adjustment to college, the authors hypothesized that adjustment to college was indicated by physical symptoms and health risks (drug and alcohol use and sexual behavior). The current study builds off Zaleski, Levey-Thors, and Schiaffino's (1998) work by more clearly measuring homesickness as opposed to the potential consequences measured in the previous paper. While there has been a link between homesickness and substance use, to our knowledge this study will be the first to examine the link specifically between homesickness and sexual behaviors directly. Sexuality has been explicitly studied in many collegiate populations, but not related with homesickness.

1.4 - Religiousness, alcohol use, and sexual behaviors in college students

Religiousness has been related to lower levels of sexual behavior and alcohol/drug use. Nonnemaker, McNeely and Blum (2003) found that multiple domains of religiousness were protective factors against cigarette, alcohol, and marijuana use among 7th-12th grade students. Similarly, Kerestes, Youniss and Metz (2004) investigated religious development by tracking both religiousness and drug/alcohol use through the high school years and found religiousness to continue to have a buffering effect throughout. Such a protective effect of religiousness has also been seen in specific communities and ethnicities, such as African American adolescents (Regnerus, Smith &

Fritsch, 2003; Wills, Gibbons, Gerrard, Murry & Brody, 2003) and Jews (Regnerus, Smith & Fritsch, 2003).

The link between alcohol and religiousness has been found both in adolescents as well as collegiate students. Both college students who classify themselves as non-religious and those who score lower on religiousness scales reported higher levels of drinking frequency, quantity of alcohol consumption, getting drunk and drinking for celebratory reasons than those with higher levels of religiousness (Patock-Peckham, Hutchinson, Cheong & Nagoshi, 1998). Additionally, spirituality scores were inversely related to binge drinking and smoking (Leigh, Bowen and Marlatt, 2005).

Religiousness's buffering effects on sexual behavior have been even better documented than its buffering effects on alcohol and drug use. This effect has been seen in terms of the number of sexual partners, use of birth control, and delaying the onset of first sexual experience. These effects may also be dependant on culture or ethnicity, as the protective factor of religiousness on sexual behaviors is more prominent with Whites as opposed to Blacks (Regnerus, Smith & Fritsch, 2003), although such a protective effect is still present in African Americans in certain domains (Mcree, Wingood, DiClemente, Davies & Harrington, 2003).

1.5 - Definitions and dimensions of religiousness

Critical to the present research project is the work of Rew and Wong (2006), who completed a thorough literature review on religiousness and spirituality in relation to adolescent health and behavior. This research examined forty-three studies over a five-year period and found thirty-seven distinct religiousness or spirituality variables that were used. The most commonly used measure of religiousness was attendance/participation in religious activities/services, which was used in twenty-three studies, followed by religious denomination. However, Rew and Wong (2006) also pointed out that both religious attendance, especially in younger populations, and to a greater extent religious denomination may be products of parental choices and beliefs rather than those of children and young adults. This clearly is not the most ideal way to measure an individual's own religiousness. In addition, almost one-third of the studies examined by Rew and Wong (2006) used only single-item measures of religiousness. The complexity

of religiousness is likely unable to be captured by one item (Daugherty & McLarty, 2003).

Similarly, McCullough and Larson (1999) completed a meta-analysis examining religiousness' effects on depressive symptoms. In their review of approximately 80 studies, religiousness' protective effects differed depending on how religiousness was measured. Several measures, such as organizational religious involvement and intrinsic religiousness reduced risk for depression, others, such as private religious activity did not exert a protective effect. These researchers also stated their support for research on religiousness with better theoretical support.

Several studies have attempted to create better general measures of religiousness that adhere to the theoretical concerns outlined by Rew and Wong (2006). For example, Nonnemaker, McNeely and Blum (2003) used two dimensions of religiousness, public and private, and found differing effects of religiousness on both substance use and sexual behaviors. Private religiousness protected against experimental drug use, while public religiousness had a larger negative association with regular cigarette use and positive effective birth control use at first sexual intercourse. Following this logic, and in gaining a strong theoretical basis, specific reasons for religiousness's buffering influence should be used in the current study. Idler et al. (2003) created a multidimensional measure of religiousness with the expressed purpose of being able to investigate multiple mechanisms of religiousness's effect. This measure included ten domains, of which religious coping is most appropriate for this study. Idler and colleagues also suggested that religiousness offers a "variety of coping methods," and their measure examines two overarching types. The first type, positive religious coping, has been seen to help individuals cope with life stressors. This type of religiousness often consists of religious practices. The second type, negative religious coping, has been found to be a sign of religious struggle and may actually worsen coping.

Idler et al. (2003) referenced findings where religious coping has been associated with physical health, mental health, and spiritual health. Additionally, religious coping has been seen to lessen depression (Koenig, Cohen, Blazer, & Pieper, 1992) and curb both drug and alcohol use using longitudinal methods (Bartkowski & Xu, 2007; Brechting & Gracola, 2007; Daugherty & McLarty, 2003). Various benefits have been

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seen through the use of religious coping, especially in with situations where an individual faces loss or illness (Mattlin, Wethington & Kessler, 1990). Additionally, religious coping has been seen to be helpful even when controlling for a global religiousness measure (Pargament, Koenigh & Perez, 2000). Pargament and colleagues (1994) found significant psychological benefits for college students at the time of the Gulf War. Data were collected using both religious and nonreligious coping measures with college students two days before Allied involvement in Kuwait. Data collection was conducted again following hostage release in Iraq. Findings indicated that those who turned to their faith were significantly less distressed both at the time and longitudinally.

1.6 - Measuring homesickness

There are a number of differing measurements of homesickness. Many prior studies used a single item homesickness questionnaire, which, while reliable, mainly looked at homesickness as a form of grief. From this perspective, homesickness is thought of as mainly a consequence of missing items or people from the sufferer's previous environment. Additionally, single item measures of homesickness fail to address the complexity and varying types of the phenomenon, such as the multi-dimensions identified by Fisher, Murray & Frazer (1985). Other perspectives have examined how new environments impact individuals' ability to cope and found that the so-called "strain model" may be a more accurate way of encapsulating homesickness. This model looks at the impact of the new environment on well-being and sees problems due to homesickness as arising due to cognitive and emotional strains.

Archer, Ireland, Amos, Broad and Currid (1998) tried to fuse these two perspectives and combined them together in one scale, the "Homesickness Questionnaire" (HQ). After data collection, an exploratory factor analysis on their scale was executed, using two factors. These two factors were "disliking the university," which accounted for 24% of the total variance, and "attachment to home," which accounted for 8.7% of the total variance. Each of the items included in the factors were loaded above .41. Cronbach's alpha for the two subscales were .85 for factor 1 and .83 for factor 2. Both parts of this scale were highly related to their single-item control of "how homesick do you feel." This single-item measurement has been found to be perhaps the most reliable measurement of homesickness; however, it does not break

homesickness into components, which is a major strength of the HQ. There was a slight yet notable difference between the two subscales and the control item, indicating that feeling homesick was more closely related to attachment to home as opposed to having negative attitudes towards the environment. Due to the theoretical strengths of this measure, it was used in the current study.

1.7 - Current project

The primary focus of the current study was to determine how global religiousness and religious coping buffer the effects of homesickness on negative outcomes, specifically depression, risky sexual behaviors and alcohol use. Additionally important is examining the differing effects of a global religiousness and religious coping, which is meant to provide a stronger conceptual basis for claims of moderation. Global religiousness is an estimate of overall religiousness based on three domains of religiousness, including organizational religiousness, personal religiousness, and private practices. Extant literature suggests that creating this distinction between global religiousness and religious coping will result in a stronger and more substantive theoretical framework as well as offer practical considerations in addressing these differences.

1.8 - Hypotheses

The hypotheses are as follows:

H1. All three religiousness dimensions will be negatively correlated to homesickness and all outcome measurements (depression, sexual behaviors, and alcohol use). Global religiousness will be negatively related to both homesickness and outcomes. Positive religious coping will be negatively correlated to homesickness and outcomes, whereas negative religious coping will be positively correlated with homesickness and outcomes. It is expected that the magnitude of correlations will be higher for the religious coping measures compared to global religiousness.

H2. Religious coping will moderate the relationship between homesickness and the negative outcomes (depression, sexual behaviors, and alcohol use), such that the positive relationship between homesickness and outcomes will be lessened for those with higher positive religious coping and be greater for those with higher negative religious

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coping. Additionally, global religiousness and each of its dimensions will be tested as moderators in order to examine their functions.

H3. Religious coping will moderate the relationship between homesickness and negative outcomes more strongly than global religiousness.

H4. Both the religious coping and global religiousness will have stronger moderating effects on sexual behaviors than depression and alcohol use, in concert with previous literature.

H5. The impact of religiousness on the relationship between homesickness and outcomes will be found across gender. For race, African Americans will see a weaker benefit from religiousness, especially on sexual behavior outcomes. Exploratory analyses will be run comparing genders; however, no hypotheses will be made.

2.0 - Method

Participants were 312 freshmen (195 female, 117 male) at a large Southeastern university. Of the 312 participants, 77.6% were White, 10.6% Asian, 3.5% Latino, 3.2% biracial, 2.9% Black, .3% Indian and 6% responded as "Other." For the analyses, race was coded as White = "0" and all others = "1". Age of participants ranged from 17-19, with a mean age of 18 years (SD = .32). Participants mean family income ranged from $50,000 to $74,999, with a mean of $72,750. Participants parents were 61.2% married, 17.6% never married, 14.1% divorced, and 7.1% other.

Recruitment e-mails were sent out offering an opportunity to participate in the study for either extra credit in their introductory psychology course or a chance to win a $10 gift card to Starbucks.

2.1 - Procedure

The procedure consisted of two parts. First, a mass e-mail to all incoming freshmen offered an opportunity to participate. In addition to the e-mail, the opportunity was listed on the Psychology Department's SONA Experiment Management System page. Participants took part in this study at one point between the fifth and seventh weeks of their freshman year, as this period is not only a common sampling time for homesickness (e.g. Beck, Taylor & Robbins, 2003; Fischer & Hood, 1988; Fisher, Murray & Frazer, 1985) but is also the time used by the Homesickness Questionnaire (e.g. Archer, Ireland et al., 1998).

Interested participants who met the inclusion criteria received an additional e-mail with a link to an online informed consent and all measures. The only inclusion criteria was that the current semester was the student's first collegiate experience.

2.2 - Measures

Demographic Data. Demographic information included each participant's gender, age, race, biological parent's marital status (whether the participant's parents are married, divorced, separated, or widowed) and approximate family income (see Appendix A). Each of these items has been examined in relation to at least one of the variables (homesickness, religiousness, risky sexual behaviors, depression and alcohol use). Demographic information was used to examine demographic background variables that were related to the main study variables. When found to be significantly related to the dependent variable, demographic variables were included in the main analyses as covariates.

Religiousness. Religiousness was measured in several ways. Of primary importance to this study is Idler et al.'s (2003) religious coping measure. This measure consists of six items that have potential buffering effects on stressful life events (see Appendix B). The scale instructs participants to fill out the scale as follows: "Think about how you try to understand and deal with major problems in your life. To what extent is each of the following involved in the way you cope?" Six statements then follow, which include items such as "I look to God for strength, support, guidance" and "I try to make sense of the situation and decide what to do without relying on God," which is reverse-scored. Answers were coded such that higher scores on the scales indicated more of the specific coping type.

Idler et al. (2003) completed factor analyses on their measures, and two main factors emerged from the scale. The first factor consisted of positive items, such as thinking of life "as a part of a larger force" or "working with God". The second factor consisted of negative items, such as "I feel God is punishing me for my sins." The first (positive) subscale, consisting of three items, had an alpha level of .81, while the second (negative) subscale, also consisting of three items, had an alpha level of .54. In the current sample, positive religious coping had an alpha of .91, and negative religious coping had an alpha of .27. According to Idler et al. (2003), there was no negative

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correlation between the positive and negative coping subscales, suggesting that the two are not mutually exclusive and thus one can score highly on both the positive and negative coping. Because of this possibility, analyses need to take this into consideration.

Global religiousness was assessed using three subscales, which are personal religiousness, private religiousness and organizational religiousness (see Appendix C). These scales are adapted from Fetzer Institute & National Institute on Aging Working Group (1999) and Jessor and Jessor's (1977) Value on Religion Scale. Organizational religiousness consists of two items measuring involvement with formal public religious institutions. These were measured in number of times per week participating in religious services and number of times participating in other religious activities (such as Bible studies or youth groups). Personal religiousness is a four-item questionnaire that attempts to assess importance of faith to an individual, and how large a role religiousness plays in their lives. Examples of questions are "how important is it to believe in God?" and "how important is it to rely on your religious beliefs as a guide for day-to-day living?" The third component of global religiousness is the private practices portion of the scale. This scale is four items as well and assesses informal religious practices, such as prayer life and reading of religious literature. Answers will be on a six-point scale, with 1 being "more than once a week" and 6 being "Never." A global religiousness variable was created using the three subtypes of religiousness. In the current sample, organizational religiousness had an alpha of .84, private practices had an alpha of .74, and personal religiousness had an alpha of .95.

Homesickness. The independent variable was homesickness based on Archer, Ireland, et al.'s (1998) homesickness scale (see Appendix B). The scale consists of 33 items and has been found to contain two main factors, (1) dislike of the university and (2) attachment to home. Five items were found not to load on either factor; however, they still contributed significantly to the homesickness scale. For this reason, the five items will remain on the scale but not be included when assessing dislike of the university or attachment to home. Chronbach's alphas were .85 for the first factor, and .83 for the second (Archer, Ireland, et al., 1998). In the current sample, dislike of the university had an alpha of .88, and attachment to home had an alpha of .86.

Items were taken directly from the scales, but two items were updated. The two items "I rarely write home" and "I write home every week" were replaced by "I rarely communicate with home" and "I communicate with my family every week," respectively. Additionally, the item "I hardly ever visit home during term time" was replaced by "I hardly ever visit home during the semester." Each item was scored on a 5-point Likert scale, with 1 being "Completely Disagree" and 5 being "Completely Agree." Items 4, 5, 10, 13, 15, 18, and 33 were reverse scored. Composite scores were created for dislike of the university and attachment to home..

Depression. There were three dependent variables; depression, sexual behavior and substance use (see Appendix D). Depression was measured with the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The scale has been well validated, and asks participants to report on thoughts and feelings during the past week. Twenty items were asked, scored 1-4, and summed to create a total depression score. The current sample had an alpha of .89.

Alcohol Use. Alcohol use was measured using a six-item questionnaire based on Chassin, Rogosch and Barrera (1991) (see Appendix E). The scale examines frequency of alcohol use and frequency of heavy alcohol use asking how often both have occurred in the past month as well as typical frequency per month. Additionally, questions about both frequency of alcohol use and frequency of heavy alcohol use during senior year of high school (or one year prior to entrance to college) were collected. These questions allow for comparison of pre- and post-college entrance alcohol use. Scales are on a 6-point scale, with 1 being "0 days" and 6 being "all 30 days" for questions addressing monthly alcohol use or "15-20 days" for monthly heavy alcohol use questions. Similar methods have been used by others, such as Nonnemaker, McNeely and Blub (2003).

Two measures of alcohol use were used as dependent variables in the current study. Frequency of alcohol use occurring in the past month (Appendix F, number 1) and intensity of alcohol use occurring in the past month (Appendix F, number 2) were used as dependent variables.

Sexual Behavior. Sexual behavior was measured using a questionnaire based on McCree, Wingood, et al. (2003) (see Appendix G). Questions address age of first vaginal sex, condom use during their most recent sex, number of partners since arrival on the

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college campus, and if they believe they have become more sexually active since arrival on the college campus. First vaginal sex was asked in years, condom use and sexual activity was a yes/no question, and number of partners was put on a four-point scale ranging from "none" to "5 or more." Participants were categorized as one of four groups based on responses to sexual behavior questions. Participants who have never had sex were categorized as "No risk," participants who had sex but used a condom were categorized as "Low risk," participants who had sex without a condom with 1 partner were categorized as "Medium risk," and participants who have had sex and not used a condom were categorized as "High risk." These four categorizations were put on a four-point continuous scale, from "No risk" as 1 to "High risk" as 4.

All variables were coded so that a higher score indicates a higher level of the variable, except gender will be coded as "0" = female and "1" = male and race will be coded "0" = white and "1" = nonwhite, and "2" = others. Because the hypothesis regarding race focuses on comparing Whites vs. Blacks, and the sample is expected to have an extremely small number of "other" race groups, those who do not belong to White or Black race groups were excluded from the analyses involving race.

2.2 - Data Analytic Strategy

Statistical analyses were conducted using structural equation modeling (SEM) with maximum likelihood estimation using AMOS 5.0 (Arbuckle, 2003), as well as hierarchical regression to probe significant interactions. Interaction terms were created using centered variables to prevent multicollinearity. In the SEM, path analyses were run using the two centered predictors (religiousness and homesickness), the interaction term, the dependent variable (depression, alcohol use or sexual behaviors), and covariates as needed (see Figure 1). When paths between the interaction term and the dependent variable were significant, simple effects were examined in accordance to Holmbeck (2002) to see how the effects of homesickness on the outcome variable differed at one standard deviation above and below the mean for the moderators (religiousness, religious coping).

Additionally, two-group SEMs were run using gender as a moderator in order to examine potential gender differences. In the SEM, two nested models were tested. First, an unconstrained model allowed all parameters to be freely estimated. In the second

model, paths between the main effects of religion and homesickness, as well as the interaction, were equalized across the groups. When the second model fit significantly worse than the first, this indicated gender differences. If gender differences were not found, the original model (Figure 1) was tested including gender as a covariate, and the values reported are based on these analyses.

In order to examine hypothesis 3, regressions were run using the main effects of positive religious coping, global religiousness, and a homesickness variable, three two-way interactions created from the three main effects variables, and one three-way interaction using each main effect. If the three-way interaction were found to be significant, that significance indicated that the original moderations function in differing ways.

Analyses were run separately for two predictors (dislike of the university and attachment to home), six moderators (positive religious coping, negative religious coping, organizational religiousness, private practices, personal religiousness, global religiousness) and four outcomes (depression, alcohol use, binge drinking, sexual behaviors); therefore, a total of 48 analyses were completed.

3.0 - Results

Means and standard deviations of key study variables are reported in Table 1. Participants scored below the mid-point of the 5-point scale on dislike of the university (M = 1.75, SD = .65) and about the mid-point on attachment to home (M = 2.58, SD = .68). Organizational religiousness (M = 2.50, SD = 1.02) was on a 6-point scale, private practices (M = 2.56, SD = 1.36) on an 8 point scale, and personal religiousness (M = 2.56, SD = 1.36), positive religious coping (M = 2.75, SD = .93) and negative religious coping (M = 3.26, SD = .51) were on 4-point scales. Participants on average drank between 3-5 days in the past month (M = 2.53, SD = 1.15), and binge drank 1-2 days, on average (M = 2.07, SD = 1.29).

There was a wide range of sexual activity (see Table 2), with 152 of participants (50.7%) stating that they had never had sex, 53 (17.7%) stating that they had sex but with a condom, 68 (22.7%) stating that they had sex without a condom with 1 partner, and 27 (9%) stating that they had sex without a condom with multiple partners.

Bivariate correlations were tested for all study variables in Tables 3 and 4. Table 3 contains bivariate correlations for the sample included in analyses for religiousness, homesickness, depression and alcohol use. Due to inconsistent responses on survey items, 8 participants were dropped from the analyses for religiousness, homesickness and sexual risk (Table 4). Of the demographic information included, gender (White = "0", others = "1") was related to depression and binge drinking ($r = -.13$, $p < .05$, and $r = -.16$, $p < .05$, respectively), while income was related to depression, alcohol use, and binge drinking ($r = -.16$, $p < .05$; $r = .11$, $p < .05$; $r = .19$, $p < .05$, respectively) and thus were included as covariates in the main analysis for depression and alcohol use. None of the three covariates were related to sexual behaviors, and were not included in the main analyses for sexual behavior analyses.

Hypothesis 1: *All three religiousness dimensions will be negatively correlated to homesickness and all outcome measurements (depression, sexual behaviors, binge drinking and alcohol use). Global religiousness will be negatively related to both homesickness and outcomes. Positive religious coping will be negatively correlated to homesickness and outcomes, whereas negative religious coping will be positively correlated with homesickness and outcomes. It is expected that the magnitude of correlations will be higher for the religious coping measures compared to global religiousness.*

Hypothesis 1 was partially supported. Negative religious coping was negatively related to depression ($r = -.35$, $p < .05$), and was the only religiousness variable related to depression (see Table 3). Alcohol use was negatively related to organizational religiousness ($r = -.28$, $p < .05$), private practices ($r = -.26$, $p < .05$), personal religiousness ($r = -.20$, $p < .05$), and global religiousness ($r = -.27$, $p < .05$), but positively related to positive religious coping ($r = .21$, $p < .05$). Binge drinking was negatively related to organizational religiousness ($r = -.25$, $p < .05$), private practices ($r = -.18$, $p < .05$), personal religiousness ($r = -.19$, $p < .05$) and global religiousness ($r = -.23$, $p < .05$). Unexpectedly, binge drinking was positively related to positive religious coping ($r = .19$, $p < .05$). Additionally, dislike of the university was related to negative religious coping ($r = -.19$, $p < .05$), but not other religiousness variables. In contrast, attachment to home homesickness was positively related to organizational religiousness ($r = .16$, $p < .05$),

private practices ($r = .13$, $p < .05$), personal religiousness ($r = -.23$, $p < .05$), global religiousness ($r = .18$, $p < .05$), and negatively related to positive religious coping ($r = -.18$, $p < .05$). Dislike of the university was positively related to depression ($r = .70$, $p < .05$) but was negatively correlated to binge drinking ($r = -.16$, $p < .05$). Attachment to home was positively related to depression ($r = .49$, $p < .05$).

As seen in Table 4, risky sexual behaviors were negatively related to organizational religiousness ($r = -.23$, $p < .05$), private practices ($r = -.18$, $p < .05$), personal religiousness ($r = -.16$, $p < .05$), and global religiousness ($r = -.20$, $p < .05$), while unexpectedly positively related to positive religious coping ($r = .19$, $p < .05$).

The hypothesis that religious coping would have correlations higher in magnitude than other religiousness variables was partially supported. Negative religious coping was most strongly correlated to depression; however, organizational religiousness had the highest correlation with sexual behaviors ($r = -.23$, $p < .05$), alcohol use ($r = -.28$, $p < .05$) and binge drinking ($r = -.25$, $p < .05$).

Hypothesis 2: *Religiousness will moderate the relationship between homesickness and the negative outcomes (depression, sexual behaviors, and alcohol use), such that the positive relationship between homesickness and outcomes will be lessened for those with higher positive religious coping and be greater for those with higher negative religious coping. Additionally, global religiousness and each of its dimensions will be tested as moderators in order to examine their functions.*

Hypothesis 2 was partially supported as well. In the SEM, path analyses were run using the two centered predictors (religiousness and homesickness), the interaction term, the dependent variable (depression, alcohol use or sexual behaviors), and covariates as needed (see Figure 1). In figure 1, covariates are not shown. When paths between the interaction term and the dependent variable were significant, simple effects were examined in accordance to Holmbeck (2002) to see how the effects of homesickness on the outcome variable differed at one standard deviation above and below the mean of the moderators (religiousness and religious coping).

The relationship between attachment to home and depression was moderated by (1) organizational religiousness, (2) private practices, (3) global religiousness, and (4) positive religious coping (see Table 5). Interestingly, the four significant moderations

functioned in several ways. Using simple effects tests in accordance to Holmbeck (2002), for positive religious coping, the link between attachment to home and depression was weaker for individuals with high positive coping (b = 4.58, SE = .90, $b*$ = .36, $p <$ .01) compared to those low in positive religious coping (b = 7.83, SE = .90, $b*$ = .63, $p <$ .01), indicating that positive religious coping was a protective factor. However, organizational religiousness, private practices, and global religiousness were seen to moderate the relationship such that individuals who scored high in religiousness had a stronger relationship between attachment to home and depression (b = 7.40, SE = .86, $b*$ = .58, $p <$ .01; b = 7.58, SE = .87, $b*$ = .60, $p <$ .01; b = 7.58, SE = .86, $b*$ = .60, $p <$ .01, respectively) than those low in religiousness (b = 4.92, SE = .91, $b*$ = .39, $p <$ .01; b = 4.74, SE = .90, $b*$ = .37, $p <$ .01; b = 4.81, SE = .91, $b*$ = .38, $p <$ .01, respectively). In these cases, simple effects tests revealed that religiousness was not a protective factor against homesickness. The relationship between dislike of the university and depression was not moderated by any religiousness variable (see Table 5).

As seen in table 6, there were no significant interactions between dislike of the university and religiousness relating to depression, indicating that there was no moderation. In terms of main effects, dislike of the university was predictive of depression, but religiousness was not.

The relationships between homesickness variables and alcohol use, both in the last 30 days and binge drinking, were partially moderated by religiousness as well. The relationship between dislike of the university and alcohol use was moderated by certain religiousness variables (see Table 7), while the relationship between attachment to home and alcohol use was not moderated (see Table 8). Personal religiousness moderated both the relationship between dislike of the university and the two types of alcohol use, while positive religious coping moderated the relationship between dislike of the university and binge drinking. However, these moderation effects were different for different religiousness variables. Personal religiousness did not function as a protective factor, as simple effects tests indicated that for both alcohol use and binge drinking, the relationship between dislike of the university and outcomes was stronger for those higher in personal religiousness (b = .00, SE = .14, $b*$ = .00, p = .99; b = .00, SE = .15, $b*$ = .00, p = .98, respectively), compared to those lower in personal religiousness (b = -.40, SE = .14, $b*$ =

-.23, $p = .01$; $b = -.63$, $SE = .16$, $b* = -.32$, $p < .01$, respectively). Positive religious coping, however, functioned as a protective factor, as the relationship between dislike of the university and alcohol use was lessened for those high in positive religious coping ($b = -.39$, $SE = .14$, $b* = -.22$, $p = .01$) compared to those low in positive religious coping ($b = -.03$, $SE = .13$, $b* = -.02$, $p = .82$).

Religiousness did not play a protective role either the relationship between dislike of the university and sexual behaviors (see Table 9) or attachment to home and sexual behaviors (see Table 8).

Hypothesis 3: *Religious coping will moderate the relationship between homesickness and negative outcomes more strongly than global religiousness.*

To test the third hypothesis, regressions were run with each outcome variable (depression, risky sexual behaviors, binge drinking, and alcohol use) using seven predictors: the main effects of positive religious coping, global religiousness, and one homesickness variable, three two way interactions created from the three main effects variables, and one three-way interaction created from each main effect. Because four outcome variables were examined with two types of homesickness variables, eight regressions were run. Each main effect was centered, and centered scores were used to create interaction terms in order to avoid multicolinearity. Three way interactions were of primary concern, as any significance in these terms would indicate a difference in strengths of moderations. The third hypothesis was not supported, as there were no significant three-way interactions. However, positive religious coping was the only religiousness variable that functioned as a protective factor (see Table 5). For those high in positive religious coping, the relationship between homesickness and depression was lessened, while those low in positive religious coping had a stronger relationship between homesickness and depression.

Hypothesis 4: *Both the religious coping and global religiousness will have stronger moderating effects on sexual behaviors than depression and alcohol use, in concert with previous literature.*

Hypothesis 4 was rejected, as there was no moderation of any religiousness variables in the relationship between homesickness and sexual behaviors (see Tables 9 and 10). Main effects of religiousness were seen, however, for organizational

religiousness, personal religiousness, private practices, positive religious coping, and global religiousness. Sexual behaviors were not related to either homesickness variable.

Hypothesis 5: *The impact of religiousness on the relationship between homesickness and outcomes will be found across gender. For race, African Americans will see a weaker benefit from religiousness, especially on sexual behavior outcomes. Exploratory analyses will be run comparing genders; however no hypotheses will be made.*

Hypothesis 5 was partially supported as well. Two-group SEMs were run using gender as a moderator in order to examine potential gender differences. In the SEM, two nested models were tested. First, an unconstrained model allowed all parameters to be freely estimated. In the second model, paths between the main effects of religion and homesickness, as well as the interaction, were equalized across the groups. When the second model fit significantly worse than the first, this indicated gender differences.

In all two-group analyses by gender, no gender differences were found except for the relationship between attachment to home and sexual behaviors with personal religiousness as the moderator (see Table 10). In this model, however, no significant moderation effects were found, and only main effects differed across genders. Specific hypotheses on race were not addressed due to the small sample size for African Americans (n=9).

4.0 - Discussion

Findings from the current investigation indicated that religiousness is a protective factor in the relationship between homesickness and maladjustment, but that protective factor varies depending on the specific domain of religiousness. In the relationship between attachment to home and depression, positive religious coping served as a protective factor, while organizational religiousness, private practices, and global religiousness were risk factors. On the other hand, all measures of religiousness did not moderate the relationship between dislike of the university and depression, although had significant main effects. In the relationship between dislike of the university and alcohol use, positive religious coping served as a protective factor against alcohol use, while personal religiousness was a risk factor for both alcohol use and binge drinking. No measures of religiousness moderated the relationship between attachment to home and

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alcohol use, but has some significant main effects. Finally, in the relationship between homesickness and sexual behaviors, religiousness was not seen to be a moderator, but its effects were significant.

The current investigation had two main goals; first, to better understand the relationship between homesickness and maladjustment and to examine how religiousness can play a role in that relationship. Extant research has only begun to examine how homesickness affects college students, and has not examined mediational or moderational effects to the degree which is fit for something that affects the number of individuals it does. Homesickness has been seen to be related to substance use and risky sexual behaviors (Fisher, Murray & Frazer, 1985; Zaleski, Levey-Thors, & Schiaffino, 1998) and to depression (Stroeb, van Vliet, Hewstone & Wills, 2002), however these relationships are often much more complicated than main effects models may indicate. Religiousness has been seen to both be a protective factor against, as well as a main effect negatively related to depression (Idler et al., 2003; Koenig, 1992; Richards, 1991), sexual behaviors (Regnerus, Smith & Fritsch, 2003, Mcree, et al., 2003), and substance use (Kerestes, Youniss & Metz, 2004; Nonnemaker, McNeely & Blum, 2003; Regnerus, Smith & Fritsch, 2003).

The second goal, to provide a backing for a more theoretically based examination of religiousness through domain-based measures, is critical due to issues currently facing the scientific study of religion. Specifically, Rew and Wong (2006) examined the number of different religiousness variables, which have been seen in research related to adolescent health and behavior. Their findings indicated that of forty-three studies, thirty-seven distinct religiousness variables were examined, with the most common being a single item measure of worship attendance. Similarly, McCullough and Larson (1999) found that religiousness has exerted differential protective factors, likely due to the wide variance in measures, further complicating our understanding of religiousness' protective effects. With such a wide and undefined set of religiousness measures, effects can be confused and difficult to replicate. Additionally, having a true understanding of how religiousness works as a protective factor is difficult.

The current study addressed both of these issues by examining the relationship between homesickness and maladjustment using several theoretically based religiousness measures as moderators. The goals of this study were examined through testing five hypotheses, which were partially supported. Of primary importance was hypothesis 2, which stated that religiousness would moderate the relationship between homesickness and negative outcomes where those higher in religiousness would see a lessened relationship between homesickness and the outcomes. Additionally important was the hypothesis that religious coping would have stronger protective effects than other aspects of religiousness.

In the relationship between attachment to home and depression, moderation was observed by four religiousness measures--organizational religiousness, private practices, global religiousness, and positive religious coping. However, some of these effects did not function as hypothesized. Positive religious coping did serve as a protective factor, whereas the other three measures did not. Similarly, moderation in the relationship between homesickness and alcohol use function differently for different religiousness variables. Positive religious coping was again found to be a protective factor, whereas personal religiousness was not.

Findings from the current study suggest that religion can function as a protective factor, but that may depend on the specific aspect of religiousness. As expected, positive religious coping was a protective factor in both the relationship between attachment to home and depression, as well as dislike of the university and alcohol use, indicating that those higher in positive religious coping had a weaker relationship between homesickness and maladjustment. Unexpectedly, though, religiousness was found to exacerbate the relationship between homesickness and some outcomes. This finding runs contrary to most literature pertaining to religiousness, as religiousness has generally been found to be a protective factor against a variety of maladjustment outcomes relating to well-being among adolescents (see Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006, for a review). However, some research investigating religiousness and mental health has seen a positive correlation between religiousness and depression, such as in older patients who indicated that some may turn to religion as a form of coping when they become ill (Koenig, Cohen, Blazer, Pieper, Meador, Shelp, et al., 1992).

There are several reasons why this might be the case. In particular, the finding that the relationship between attachment to home and depression was heightened for those high in religiousness may be more understandable in a larger religiousness context. Religion has been seen as a largely family-based phenomenon, which can increase family cohesiveness. In fact, religious youths have been seen to have higher quality relationships with their parents (Smith, 2003), which could lead to increased homesickness, in particular the attachment to home subscale of homesickness. While religiousness may provide youths and their families with some common ground and improve their relationships, it could in fact make their transition even more difficult. The fact that religiousness served as a risk factor for homesickness and depression is also more likely than an increase in sexual risk or alcohol use, as religiousness' impact on these outcomes has been even more well-founded.

In addition to this, religiousness has not been extensively examined in collegiate samples, and there may be something about the collegiate experience that causes individuals to either lose their religiousness, or at least lose its protective effects. College is a time in which many individuals believe that their core beliefs may change (Worthington, 1989). During this transition period, individuals may not find a worship environment suitable for them, either because they had a particular house of worship they were very comfortable with, or even because their particular religion or denomination may not be represented at the new campus. Because of this change, individuals may lose some of the social support that they are used to receiving, or simply lose some of the reinforcement of beliefs they would experience if they were to attend their home congregation. Similarly, while religiousness has been seen to be a protective factor, effects of religiousness are generally small, even in adult samples. When young adults leave home to go to college, a time of much upheaval, the effects of religiousness could be even more volatile. While many students are adjusting to their new surroundings, some could lose their religiousness in the mix, which could also be why there are lower levels of organizational religiousness in college samples, or these lower levels of participation in activity could lead to more adjustment issues.

One of the reasons for the dearth of literature on religiousness in college students as a protective factor could be the well-known file-drawer problem (Rosenthal, 1979; Ashworth, Osburn, Callender & Boyle, 1992), in particular if religiousness does not have the same protective effects in this population. Null effects can be difficult to publish, thus some previous studies with nonsignificant findings of religiousness may not have been published.

An additional reason for the lack of moderation in the study could be due to locus of control. Individuals who profess religious beliefs, but who do not use methods such as positive religious coping, could simply look to God for strength and comfort, but might not actively attempt to combat their homesickness. If these individuals are more passive, they may fail to engage their community, which has been suggested to be one of the main ways of dealing with homesickness (Thurber et al., 2007). On the other hand, individuals who use positive coping methods, such as "working together with God as partners" (Idler et al., 2003), may engage their community and not wait for God to help them. In a similar vein, Kay, Gaucher, McGregor and Nash (2010) found that when one feels low control of a situation, religious conviction can become an alternative form of control. When individuals feel that they lack internal control, they may substitute religious beliefs, which can buffer the aversive feelings, especially in times of uncertainty.

The relationship between homesickness and sexual behaviors was not moderated by any religiousness variable; however, this may be due to characteristics of the current study's sample. In the current sample, sexual behaviors were not related to attachment to home or dislike of the university ($r = .02$, $p = .75$; $r = .03$, $p = .56$, respectively). Therefore, in addition to failing to provide support for hypothesis 2, these results also run contrary to hypothesis 4 that proposed that sexual behaviors would be moderated more strongly than other outcomes. Additionally, a number of correlations were not in the hypothesized directions. Homesickness was related to alcohol use, but this correlation was not as hypothesized as dislike of the university was unexpectedly negatively correlated with binge drinking ($r = -.16$, $p < .05$). The nonsignificant correlations between religiousness and sexual behaviors contradict some previous studies in a collegiate sample that homesickness was positively correlated with sexual behaviors (e.g. Zaleski, et al., 1998). However, prior research seems to show mixed findings regarding the

religiousness-sexual behavior connection. For example, Poulson et al. (2008) found that among college students, religion was not related to attitudes towards sex and alcohol.

Also, contrary to predictions in hypothesis 3, religious coping did not moderate the relationship between homesickness and negative outcomes more strongly than global religiousness. While positive religious coping was found to be a protective factor, the results of the three-way interaction in the regression analysis were nonsignificant, indicating that there was no significant difference in the magnitude of the moderating effects. However, this effect may be a result of not having sufficient power due to the relatively small sample size.

4.1 - Limitations and future directions

The current study examined religiousness as a protective factor in the relationship between homesickness and maladjustment; however there are several factors that could limit its contributions to the field. First, the sample consisted of mostly white, middle-class students from Southwestern Virginia. Second, religiousness has been seen to have generally small effect sizes. According to G*Power 3 (Faul, Erdfelder, Lang & Buchner, 2007), attempting to find a small interaction ($R^2_{mult} = .02$) above and beyond the main effect, the desired effect size would be $f^2 = .0204$. With this information, an alpha level of .05, 3 predictors, 2 degrees of freedom and an attempted .8 power, 476 participants would be needed to identify a small interaction. The current study consisted of 312 participants, which could have lead to the non-significant findings. If the protective effects of religiousness do decrease in the tumultuous period that is the adjustment to college, this issue could loom even larger. As well as having more participants, future studies would be fruitful to examine general coping skills, as well as religious coping, in an examination such as the current one. While religious coping has been seen to have advantages even when controlling for overall coping (Pargament, Koenigh & Perez, 2000), further empirical support of the conceptual distinctions between the two would be welcome.

Future studies should consider using longitudinal designs over the course of several semesters. To our knowledge, no studies examining homesickness and religiousness used longitudinal designs, which would give several distinct advantages to cross-sectional research. First, it would help researchers better understand possible correlates associated with the progression and decline of homesickness. Researchers

could also gain a better understanding of the best time to examine homesickness, as most studies have studied homesickness only in the fifth to seventh weeks of the first semester. In addition to the timing of measures, religiousness could function very differently over the course of time, and if it is lost in transition to college, it may be regained and help students later in the semester or school year.

5.0 - Conclusions

This study investigated several areas that have been overlooked in current literature, both in religiousness and college adjustment. First, findings indicate that students can benefit from religiousness; however, the extent of that benefit depends on what domain of religiousness is being considered. Similarly, religiousness needs to be measured with more theoretical, domain specific measures that examine the subtleties of an individual's religious experience. In this way we can better understand religiousness and how it relates to other individuals' adjustment. Finally, the current study supports the investigation of mediational and moderational pathways that can better inform us about the complex relationships dealt with in each study. While there are several limitations to this study, it still provides great insight into the understanding of religiousness and college students' health. While health care professionals and intervention programs have been historically hesitant to broach the topic of religion with patients (Matthews, McCullough, Larson, Koenig, Swyers & Greenwald Milano, 1998), the current findings suggest that professionals and programs should target the use of positive religious coping in aiding the transition into college. Religion is a central part of many peoples' lives, and warrants attention as a potential protective factor. By considering religion, and specifically religious coping, we can help lessen the negative effects of homesickness, and aid in students' physical and emotional well-being.

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Table 1.

Means and Standard Deviations for Study Variables

	Mean	SD
Dislike of the University		
	1.78	0.65
Attachment to Home		
	2.58	0.68
Organizational Religiousness		
	2.73	1.41
Private Practices		
	2.56	1.36
Personal Religiousness		
	2.50	1.02
Global Religiousness		
	2.60	1.17
Positive Religious Coping		
	2.75	0.93
Negative Religious Coping		
	3.26	0.51
Alcohol Use		
	2.53	1.15
Binge Drinking		
	2.07	1.29
Depression		
	32.63	8.57

Table 2.

Sexual behavior groups

	Number	Percent
Never had sex	152	50.2
Sex with condom only	53	17.5
Sex without condom 1 partner	68	22.4
Sex without condom, 2+ partners	27	8.9

Table 3.
Bivariate correlations for covariates, homesickness, religiousness, and depression and alcohol use outcomes

	Gender	Income	Race	Org	Prv	Per	Pos	Neg	Global	Dis	Att	CES-D	Alc 30	Alc Binge
Gender	-													
Income	.05	-												
Race	.15*	-.19*	-											
Org	-.12*	-.06	-.08	-										
Prv	-.16*	-.01	-.03	.81*	-									
Per	-.21*	-.04	-.06	.74*	.75*	-								
Pos	.20*	.05	.06	-.75*	-.79*	-.84*	-							
Neg	-.07	-.02	-.05	.21*	.27*	.22*	-.20*	-						
Global	-.17*	-.04	-.06	.94*	.94*	.88	-.86	.25*	-					
Dis	-.11*	-.11	.06	.00	.00	.04	-.04	-.23*	.01	-				
Att	-.26*	-.03	-.01	.16*	.12*	.22*	-.18*	-.04	.18*	.60*	-			
CES-D	-.13*	-.16*	.06	.03	.02	.04	-.06	-.25*	.03	.70*	.49*	-		
Alc 30	.05	.12*	.05	-.28*	-.26*	-.20*	.21*	-.02	-.27*	-.11	-.07	-.06	-	
Alc Binge	.14*	.19*	.07	-.25*	-.18*	-.19*	.19*	-.05	-.23*	-.16*	-.11	-.07	.77*	-

Note. Org = Organizational Religiousness. Prv = Private Practices Religiousness. Per = Personal Religiousness. Pos = Positive Religious Coping. Neg = Negative Religious Coping. Global = Global Religiousness. Dis = Dislike of the University. Att = Attachment to Home. Alc 30 = Alcohol use in last 30 days. Alc Binge = Bing Drinking.
*p < .05

Table 4.

Bivariate correlations for homesickness, religiousness and sexual behavior

	Gender	Income	Race	Org	Prv	Per	Pos	Neg	Tot	Dis	Att	Sex
Gender	-											
Income	.07	-										
Race	.15*	-.18*	-									
Org	-.12*	-.06	-.08	-								
Prv	-.17*	.00	-.04	.82*	-							
Per	-.22*	-.04	-.06	.74*	.75*	-						
Pos	.21*	.05	.06	-.76*	-.79*	-.84*	-					
Neg	-.04	-.03	-.04	.22*	.31*	.24*	-.25*	-				
Tot	-.18*	-.03	-.07	.94*	.94*	.88*	-.86*	-.28*	-			
Dis	-.16*	-.10	.04	.00	-.03	.03	-.01	-.19*	.00	-		
Att	-.28*	-.02	-.01	.16*	.12*	.23*	-.18*	-.03	.18*	.60*	-	
Sex	-.07	.03	-.07	-.23*	-.18*	-.16*	.19*	-.04	-.20*	.03	.02	-

Note. Org = Organizational Religiousness. Prv = Private Practices Religiousness. Per = Personal Religiousness. Pos = Positive Religious Coping. Neg = Negative Religious Coping. Global = Global Religiousness. Dis = Dislike of the University. Att = Attachment to Home. Sex = Risky Sexual Behavior.
*p < .05

Table 5

Parameter Estimates and Critical Ratios for Structural Equation Models for Religiousness, Attachment to Home, the Interaction between the two, and Depression (CES-D)

	Organizational Religiousness	Personal Religiousness	Private Practices Religiousness	Positive Religious Coping	Negative Religious Coping	Religion Composite
	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)
Regression Effect						
Att → CES-D	6.10* (9.42)	6.10* (9.31)	6.06* (9.39)	6.11* (9.45)	5.93* (9.53)	6.12* (9.23)
Religion Type → CES-D	-.31 (-1.30)	-.53 (-1.28)	-.05 (-.09)	-.21 (-.46)	4.08* (5.11)	-.39 (-1.37)
Rel X Att Interaction → CES-D	.75* (2.25)	1.16 (2.00)	1.39* (1.61)	1.68* (2.48)	-.05 (-.04)	.92* (2.30)
Covariances						
Int ↔ Rel	.04 (.32)	-.04 (-.87)	.01 (.29)	-.05 (-1.40)	.00 (.11)	-.03 (-.30)
Int ↔ Att	.06 (1.32)	.03 (1.20)	.01 (.65)	-.01 (-.38)	.00 (-.16)	.03 (.73)
Rel ↔ Att	.22* (3.11)	.16* (3.85)	.02 (-.68)	-.11* (-3.11)	.02 (1.08)	.19* (3.28)
Rel ↔ Gender	-.15* (-3.02)	-.11* (-3.85)	.00 (-.08)	-.09* (-3.37)	N/A	-.14* (-3.26)
Att ↔ Gender	-.09* (-4.53)	-.09* (-4.43)	-.09* (-4.43)	-.09* (-4.43)	-.09* (-4.51)	-.09* (-4.43)
Int ↔ Gender	N/A	.05 (2.33)	.01 (.42)	.04* (2.54)	N/A	.06* (1.97)
Covriates						
Gender → CES-D	-0.37 (-.41)	-.50 (-.54)	-.06 (-.07)	-.40 (-.43)	-.37 (-.43)	-.45 (-.50)
Income → CES-D	-.61* (-2.86)	-.62* (-2.87)	-.61* (-2.84)	-.60* (-2.81)	-.65* (-3.13)	-.61* (-2.84)

Note. C.R. = Critical Ratio. Att = Attachment to Home. Rel X Dis = Religiousness and Attachment to Home Interaction.
*p < .05

Table 6.

Parameter Estimates and Critical Ratios for Structural Equation Models for Religiousness, Dislike of the University, the Interaction between the two, and Depression (CES-D)

	Organizational Religiousness	Personal Religiousness	Private Practices	Positive Religious Coping	Negative Religious Coping	Religion total
	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)
Regression Effect						
Dis → CES-D	9.00* (16.88)	8.99* (16.83)	8.96* (16.77)	8.92* (16.61)	8.79* (15.97)	8.99* (16.85)
Religion Type → CES-D	.06 (.29)	.02 (.05)	.09 (.36)	-.22 (-.57)	-2.04* (-2.84)	.11 (.36)
Rel X Dis Interaction → CES-D	.26 (.89)	.36 (.70)	.47 (1.19)	-.67 (-1.29)	.95 (1.16)	.40 (.88)
Covariances						
Int ↔ Rel	-.00 (-.05)	.02 (.45)	-.05 (-.67)	.02 (.53)	.07* (5.20)	-.01 (-.10)
Int ↔ Dis	.01 (.38)	.03 (1.36)	.06 (1.71)	-.06* (-2.52)	-.07* (-3.92)	.03 (1.21)
Rel ↔ Dis	.01 (.17)	.03 (.66)	.00 (.02)	-.03 (-.72)	-.08* (-4.14)	.01 (.23)
Rel ↔ Gender	-.09* (-2.21)	-.11* (-3.68)	-.10* (-2.71)	.09* (3.41)	N/A	-.10* (-2.99)
Dis ↔ Gender	-.04 (-2.02)	-.04* (-2.06)	-.04* (-2.04)	-.04* (-2.18)	-.04* (-2.23)	-.04* (-2.02)
Covriates						
Gender → CES-D	-.93 (-1.27)	-.97 (-1.33)	-.94 (-1.30)	-.95 (-1.30)	-1.14 (-1.61)	-.93 (-1.28)
Income → CES-D	-.35 (-1.97)	-.35* (-1.97)	-.35* (-1.99)	-.35* (-1.98)	-.36* (-2.07)	-.35* (-1.97)

Note. C.R. = Critical Ratio. Dis = Dislike of the University. Rel X Dis = Religiousness and Dislike of the University Interaction.
*p < .05

Table 7.

Parameter Estimates and Critical Ratios for Structural Equation Models for Religiousness, Dislike of the University, the Interaction between the two, and Alcohol Use

	Organizational Religiousness		Personal Religiousness		Private Practices		Pos Religious Coping		Neg Religious Coping		Religion Total	
	Alc 30	Binge 30	Alc 30	Binge 30	Alc 30	Binge 30	Alc 30	Binge 30	Alc 30	Binge 30	Alc 30	Binge 30
Regression Effect (Critical Ratio)												
Dis → Alcohol	-.18 (-1.84)	-.26* (-2.45)	-.18 (-1.82)	-.27* (-2.23)	-.19 (-1.96)	-.28* (-2.56)	-.19 (-1.92)	-.28* (-2.55)	-.17(-1.67)	-.28* (-2.46)	-.18 (-1.87)	-.27* (-2.52)
Religion Type → Alcohol	-.23* (-5.11)	-.21* (-4.24)	-.22* (-3.52)	-.21* (-3.00)	-.21* (-4.65)	-.15* (-2.96)	.26* (3.74)	.22* (2.93)	-.14 (-1.04)	-.19 (-1.28)	-.26* (-4.93)	-.23* (-3.76)
Rel X Dis Interaction → Alcohol	.05 (.71)	.08 (.99)	.19* (2.01)	.28* (2.66)	.11 (1.58)	.14 (1.81)	-.19* (-1.96)	-.20 (-1.89)	.16 (1.00)	.03 (.17)	.12 (1.49)	.17 (1.86)
Covariances												
Int ↔ Rel	-.00 (-.05)	.00 (.00)	.01 (.16)	.02 (.45)	-.05 (-.78)	-.05 (-.67)	.01 (.24)	.02 (.53)	.07* (5.20)	.07* (5.20)	-.01 (.24)	-.01 (-.10)
Int ↔ Dis	.01 (.36)	.01 (.41)	.03 (1.20)	.03 (1.36)	.05 (1.61)	.06 (1.71)	-.06* (-2.33)	-.06* (-2.52)	-.07* (-3.92)	-.07* (-3.92)	.03 (1.10)	.03 (1.21)
Rel ↔ Dis	.00 (.08)	.00 (-.08)	.02 (.64)	.03 (.66)	.00 (.02)	.00 (.02)	-.02 (-.68)	-.03 (-.72)	-.08* (-3.99)	-.08* (-4.14)	.01 (.23)	.01 (.23)
Rel ↔ Gender	N/A	-.08* (-2.13)	N/A	-.11* (-3.68)	N/A	-.10* (-2.71)	N/A	.09* (3.41)	N/A	N/A	N/A	-.10* (-2.99)
Dis ↔ Gender	N/A	-.04* (-1.97)	N/A	-.04* (-2.06)	N/A	-.04* (-2.04)	N/A	-.04* (-2.18)	N/A	-.04* (-2.23)	N/A	-.04* (-2.02)
Covriates												
Gender → Alcohol	N/A	.24 (1.67)	N/A	.20 (1.34)	N/A	.24 (1.62)	N/A	.21 (1.43)	N/A	.30* (2.04)	N/A	.21 (1.45)
Income → Alcohol	.05 (1.58)	.10* (2.82)	.05 (1.65)	.10* (2.87)	.06 (1.80)	.11* (2.99)	.05 (1.63)	.10* (2.87)	.06 (1.82)	.11* (2.97)	.05 (1.65)	.10* (2.89)

Note. Alcohol Use 30 = Number of Days in last 30 with at least 1 drink of Alcohol. Binge 30 = Binge Drinking in last 30 days. Dis = Dislike of the University. Rel X Dis = Religiousness and Dislike of the University Interaction.

*p < .05

Table 8.

Parameter Estimates and Critical Ratios for Structural Equation Models for Religiousness, Attachment to Home, the Interaction between the two, and Alcohol Use

	Organizational Religiousness		Personal Religiousness		Private Practices Religiousness		Positive Religious Coping		Negative Religious Coping		Religion Total	
	Alcohol Use 30	Binge 30	Alcohol Use 30	Binge 30	Alcohol Use 30	Binge 30	Alcohol Use 30	Binge 30	Alcohol Use 30	Binge 30	Alcohol Use 30	Binge 30
Regression Effect (Critical Ratio)												
Rel X Att Interaction → Alcohol	-.00 (-.03)	.90 (1.31)	.06 (.62)	.13 (1.28)	.01 (.17)	.07 (.96)	.01 (.06)	-.10 (-.91)	-.10 (-.47)	.00 (.01)	.02 (.22)	.11 (1.25)
Att → Alcohol	-.05 (-.54)	-.10 (-.90)	-.05 (-.54)	-.10 (-.89)	-.07 (-.74)	-.12 (-1.11)	-.06 (-.63)	-.10 (-.95)	-.12 (-1.27)	-.14 (-1.31)	-.05 (-.47)	-.10 (-.91)
Religion Type → Alcohol	-.22* (-4.93)	-.20* (04.03)	-.21* (-3.27)	-.19* (-2.67)	-.21* (-4.55)	-.15* (-2.85)	.25* (3.55)	.21* (2.66)	-.05 (-.40)	-.11 (-.75)	-.26* (-4.75)	-.22* (-3.53)
Covariances												
Int ↔ Rel	.01 (.07)	.02 (.22)	-.03 (-.70)	-.03 (-.70)	-.02 (-.28)	-.02 (-.28)	-.05 (-1.36)	-.05 (-1.36)	.00 (.14)	.00 (.14)	-.02 (-.34)	-.02 (-.33)
Int ↔ Att	.04 (.93)	.05 (1.29)	.01 (.46)	.01 (.47)	.02 (.54)	.02 (.54)	.01 (.34)	.01 (.34)	.00 (-.14)	.00 (.19)	.02 (.71)	.02 (.71)
Rel ↔ Att	.15* (2.72)	.15* (2.73)	.15* (3.84)	.15* (3.84)	.11* (2.16)	.11* (2.15)	-.11* (-3.11)	-.11* (-3.11)	-.01 (-73)	-.02 (-1.08)	.14* (3.07)	.14* (3.06)
Rel ↔ Gender	N/A	-.08* (2.14)	N/A	-.11* (-3.65)	N/A	-.10* (-2.74)	N/A	.09* (3.37)	N/A	N/A	N/A	-.10* (-2.99)
Att ↔ Gender	N/A	-.09* (-4.51)	N/A	-.09* (-4.43)	N/A	-.09* (-4.43)	N/A	-.09* (-4.43)	N/A	-.09* (-4.51)	N/A	.05* (2.00)

Int ↔ Gender	N/A	N/A	.05* (2.41)	N/A	.06* (2.12)	N/A	-.04* (-2.52)	N/A	N/A	N/A	-.09 (-4.43)
Covariates											
Gender → Alcohol	N/A	.24 (1.59)	N/A	.21 (1.35)	N/A	.23 (1.48)	N/A	.22 (1.43)	N/A	.30 (1.93)	.21 (1.37)
Income → Alcohol	.06 (1.79)	.11* (3.13)	.06* (1.95)	.12* (3.27)	.07* (2.03)	.12* (3.30)	.06 (1.87)	.12* (3.21)	.07 (1.96)	.12* (3.21)	.06 (1.90)	.12* (3.25)

Note. C.R. = Critical Ratio. Alcohol Use 30 = Number of Days in last 30 with at least 1 drink of Alcohol. Binge 30 = Binge Drinking in last 30 days. Att = Attachment to Home. Rel X Att = Religiousness and Attachment to Home Interaction. Rel = Religiousness type

*p < .05

Table 9

Parameter Estimates and Critical Ratios for Structural Equation Models for Religiousness, Dislike of the University, the Interaction between the two, and sexual behaviors

	Organizational Religiousness	Personal Religiousness	Private Practices	Positive Religious Coping	Negative Religious Coping	Religion Total
	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)
Regression Effect						
Dis → Sex	.06 (.60)	.06 (.63)	.05 (.49)	.05 (.57)	.06 (.57)	.05 (.56)
Religion Type → Sex	-.17* (-3.99)	-.16* (-2.75)	-.13* (-3.00)	.21 (3.22)	-.09 (-.72)	-.18* (-3.59)
Rel X Dis Interaction → Sex	.06 (.99)	.10 (1.09)	.04 (.61)	-.09 (-.97)	.14 (.86)	.07 (.95)
Covariances						
Int ↔ Rel	-.02 (-.28)	-.01 (-.13)	-.09 (-1.37)	-.02 (-.64)	.04* (3.49)	-.03 (-.54)
Int ↔ Dis	.00 (.11)	.01 (.44)	.02 (.55)	.03 (-1.09)	-.04* (-2.53)	.01 (.36)
Rel ↔ Dis	.00 (.06)	.02 (.43)	-.02 (-.45)	-.01 (-.22)	-.06* (-3.29)	.00 (-.02)

Note. C.R. = Critical Ratio. Dis = Dislike of the University. Rel X Dis = Religiousness and Dislike of the University Interaction.
*$p < .05$

Table 10

Parameter Estimates and Critical Ratios for Two-Group Structural Equation Models for Gender Differences in the Effects of Religiousness, Attachment to Home, and the Interaction between the two, on sexual behaviors

	Organizational Religiousness	Personal Religiousness	Private Practices	Positive Religious Coping	Negative Religious Coping	Religion Total
	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)	Estimate (CR)
Regression Effect						
Att → Sex	.08 (.89)	.15 (1.38)/-.37*(-1.99)	.06 (.65)	.08 (.90)	.03 (.30)	.08 (.90)
Religion Type → Sex	-.17* (-4.09)	-.26* (-3.50)/.01 (.07)	-.14* (-3.11)	.21* (3.22)	-.08 (-.66)	-.19* (-3.69)
Rel X Att Interaction → Sex	.06 (1.00)	.17 (1.63)/.13 (.76)	.05 (.83)	-.13 (-1.35)	.00 (.01)	.08 (1.09)
Covariances						
Int ↔ Rel	-.01 (-.16)	.13* (2.34)/-.26* (-4.01)	-.04 (-.50)	-.06 (-1.72)	-.01 (-.85)	-.03 (-.54)
Int ↔ Att	.04 (.95)	.09* (2.27)/-.07 (-1.90)	.02 (.42)	.01 (.43)	.00 (.05)	.02 (.64)
Rel ↔ Att	.15* (2.76)	.06 (1.14)/.21* (3.69)	.11* (2.05)	-.11* (-3.06)	-.01 (-.56)	.14* (3.03)

Note. C.R. = Critical Ratio. Att = Attachment to Home. Rel X Dis = Religiousness and Attachment to Home Interaction.
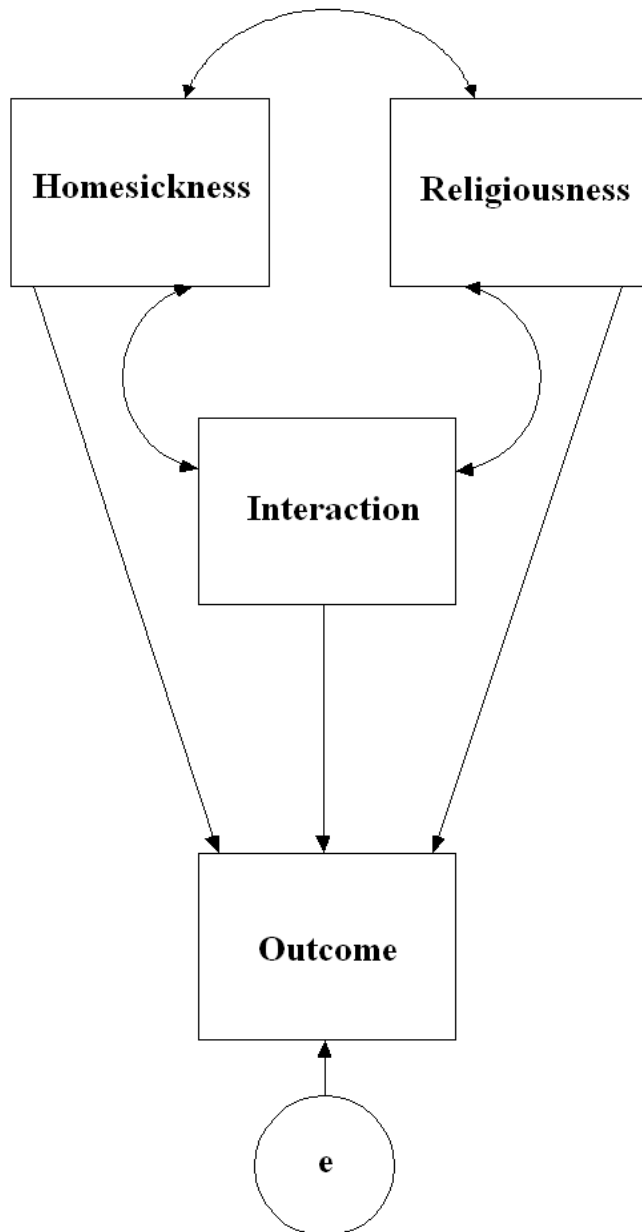*p < .05

Figure 1.

Structural model for the Interaction Between Religiousness, Homesickness, and Outcome

Variables

Appendix A

Demographic Information

1. How old are you? (Record age in years.)   AGE_____

2. When is your birthday (**only** month and year, **no** day)?   DOB __ __/__ __ __ __
                                                                         Mo   Year

3. What is your gender?
        1 = Female
        2 = Male

                                                                    GENDER _____

4. What is the marital status of your **biological** parents (in relation to one another)- married, widowed, separated, divorced, or never married?
        1 = never married
        2 = married
        3 = widowed
        4 = divorced
        5 = legally separated
        6 = separated, not legally   RMASTAT_____ 7 =
living together as married

5. What is your marital status? (married, widowed, separated, divorced, or never married?)
        1 = never married
        2 = married
        3 = widowed
        4 = divorced
        5 = legally separated
        6 = separated, not legally   MASTAT_____ 7 =
                                                                      1-7
living together as married

6. How would you describe your own race?
        1. Black
                40 African American
                41 Caribbean or West Indian
                42 Cuban
                43 Dominican
                44 Puerto Rican
                90 Other _____ (specify) Black mix- with 2 or more black ethnicities.
        2 White
                80 White, Caucasian, Euro-American not of Latino Origin
        3 Latino or Hispanic, Non-Black
                50 Cuban
                51 Dominican

52 Puerto Rican
53 Mexican
    Other _____(specify)
90 Other _____(specify) Latino/ Nonblack mix with 2 or more
Latino/nonblack ethnicities

4,5, or 6 Biracial or Multiracial
4   90 Black / White
5   90 Latino / White
6   90 Latino / Black
9   90 Other _____(specify)

7 Asian or Asian-America
        30 Chinese
        31 (East) Indian
        32 Filipino
        33 Japanese
        34 Other _____(specify)
        90 Other _____(specify) Asian mix- with 2 or more Asian
ethnicities

8   20 American Indian
9   Other
        10 Alaskan Native / Eskimo / Aleut
        60 Middle Eastern
        70 Pacific Islander
        91 Other _____(specify)

RACE_____
SUBRACE_____

7. Please estimate your total annual family income before taxes for all the adults in your household. Please include all (including TANF, AFDC, food stamps, SSI, rent voucher, fuel assistance and child support).

a. None   or $0 per month
b. Less than 1,000   or   Less than $83 per month
c. $1,000 - $2,999   or $83 - $249 per month
d. $3,000 - $4,999   or $250 - $416 per month
e. $5,000 - $7,499   or $417 - $624 per month
f. $7,500 - $9,999   or $625 - $833 per month
g. $10,000 - $14,999   or $834 - $1,249 per month
h. $15,000 - $19,999   or $1,250 - $1,666 per month
i. $20,000 - $24,999   or $1,667 - $2,083 per month
j. $25,000 - $34,999   or $2,084 - $2,916 per month
k. $35,000 - $49,999   or $2,917 - $4,167 per month
l. $50,000 – $74,999   or $4,168 - $6,249 per month
m. $75,000 - $99,999   or $6, 250 - $8,333 per month
n. $100,000 - $199,999 or $8,334 - $16,666 per month
o. $200,000 or more   or $16,667 or more per month

Appendix B

Religious Coping

Think about how you try to understand and deal with major problems in your life. To what extent is each of the following involved in the way you cope?

1. I think about how my life is part of a larger spiritual force.
   A) A great deal
   B) Quite a bit
   C) Somewhat
   D) Not at all

2. I work together with God as partners.
   A) A great deal
   B) Quite a bit
   C) Somewhat
   D) Not at all

3. I look to God for strength, support, and guidance.
   A) A great deal
   B) Quite a bit
   C) Somewhat
   D) Not at all

4. I feel that God is punishing me for my sins or lack of spirituality
   A) A great deal
   B) Quite a bit
   C) Somewhat
   D) Not at all

5. I wonder whether God has abandoned me.
   A) A great deal
   B) Quite a bit
   C) Somewhat
   D) Not at all

6. I try to make sense of the situation and decide what to do without relying on God.
   A) A great deal
   B) Quite a bit
   C) Somewhat
   D) Not at all

Appendix C

Religiosity

Here are some statements that describe religious attitudes and practices. Please answer all questions as honestly as possible. For each question circle the number that best describe your feelings and behaviors regarding religious experience.

1.   What is your religion, if any?
1) Protestant (Give denomination): _____
2) Roman Catholic
3) Jewish
4) Muslim
5) Other (Specify): _____
6) None

2.   How often do you go to religious services?
1) More than once a week
2) Every week or more often
3) Once or twice a month
4) Every month or so
5) Once or twice a year
6) Never

3.   Besides religious services, how often do you take part in other activities at a place of worship?
1) More than once a week
2) Every week or more often
3) Once or twice a month
4) Every month or so
5) Once or twice a year
6) Never

4.   How often do you pray privately in places other than at church or synagogue?
1) More than once a day
2) Once a day
3) A few times a week
4) Once a week
5) A few times a month
6) Once a month
7) Less than once a month
8) Never

5.   How often do you watch or listen to religious programs on TV or radio?
1) More than once a day
2) Once a day
3) A few times a week
4) Once a week
5) A few times a month
6) Once a month
7) Less than once a month
8) Never

6.   How often do you read the Bible or other religious literature?
1) More than once a day
2) Once a day
3) A few times a week
4) Once a week
5) A few times a month
6) Once a month
7) Less than once a month
8) Never

7.   How often are prayers or grace said before or after meals in your home?
1) At all meals
2) Once a day
3) At least once a week
4) Only on special occasions
5) Never

Here are some questions on what you think about things. Read each one, and circle a number to show what you think. How important it is……….

8.   To believe in God
1) Not at all important
2) A little important
3) Pretty important
4) Very important

How important it is……….
9.   To be able to rely on religious teachings when you have a problem.
1) Not at all important
2) A little important
3) Pretty important
4) Very important

10.   To be able to turn to prayer when you're facing a personal problem.
1) Not at all important
2) A little important
3) Pretty important
4) Very important

11.   To rely on religious beliefs as a guide for day to day living.
1) Not at all important
2) A little important
3) Pretty important
4) Very important

12.   To look to God for strength, support, and guidance when you deal with major problems in your life.
1) Not at all important
2) A little important
3) Pretty important
4) Very important

Appendix D

Homesickness

For questions 1 through 8, please use the following scale:

1 = Strongly Disagree
2 = Somewhat Disagree
3 = Neutral
4 = Somewhat Agree
5 = Strongly Agree

1. I can't help thinking about my home	1	2	3	4	5
2. I can't concentrate on my work because I'm always thinking about home	1	2	3	4	5
3. When I'm thinking about nothing in particular my thoughts always come back to home	1	2	3	4	5
4. I hardly ever think about my home	1	2	3	4	5
5. There is so much going on here that I hardly ever think about home	1	2	3	4	5
6. I visit home as often as I can	1	2	3	4	5
7. I communicate with my family every week	1	2	3	4	5
8. Thinking about home makes me cry	1	2	3	4	5
9. I dream about my friends at home	1	2	3	4	5
10. I've settled in really well at the university	1	2	3	4	5
11. If I ever went home for the weekend I wouldn't want to come back	1	2	3	4	5
12. I try to make my room like that at home	1	2	3	4	5
13. I rarely communicate with home	1	2	3	4	5
14. I hate this place	1	2	3	4	5
15. I hardly ever visit home during the semester	1	2	3	4	5

16. I am drawn towards people who come from my hometown	1	2	3	4	5
17. I get really upset when I think about home	1	2	3	4	5
18. I am really happy to be here at the university	1	2	3	4	5
19. It upsets me if I am unable to phone home each week	1	2	3	4	5
20. I can't concentrate on my work	1	2	3	4	5
21. I feel empty inside	1	2	3	4	5
22. I avoid going home because it would be too upsetting	1	2	3	4	5
23. I wish I had never come to the university	1	2	3	4	5
24. I dream about my home	1	2	3	4	5
25. I try to shut off thinking about my home	1	2	3	4	5
26. The people here annoy me	1	2	3	4	5
27. I can't seem to settle here at the university	1	2	3	4	5
28. I often dream about my family back home	1	2	3	4	5
29. My parents pushed me into coming to the university	1	2	3	4	5
30. I feel as if I've left part of me at home	1	2	3	4	5
31. I blame myself for having come to this university	1	2	3	4	5
32. I feel restless here	1	2	3	4	5
33. If I go home for the weekend I feel excited at the prospect of coming back to the university	1	2	3	4	5

Appendix E

CES-D

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past WEEK.

     1 = Rarely or None of the Time (Less than 1 Day)
     2 = Some or a little of the Time (1-2 Days)
     3 = Occasionally or a Moderate Amount of Time (3-4 Days)
     4 = Most or All of the Time (5-7 Days)

1.   I was bothered by things that usually don't bother me.

          1   2   3   4

2.   I did not feel like eating; my appetite was poor.

          1   2   3   4

3.   I felt that I could not shake off the blues even with help from my family or friends.

          1   2   3   4

4.   I felt that I was just as good as other people.

          1   2   3   4

5.   I had trouble keeping my mind on what I was doing.

          1   2   3   4

6.   I felt depressed.

          1   2   3   4

7.   I felt that everything I did was an effort.

          1   2   3   4

8.   I felt hopeful about the future.

          1   2   3   4

9.   I thought my life had been a failure.

          1   2   3   4

10.   I felt fearful.

                        1   2   3   4

11.   My sleep was restless.

                        1   2   3   4

12.   I was happy.

                        1   2   3   4

13.   I talked less than usual.

                        1   2   3   4

14.   I felt lonely.

                        1   2   3   4

15.   People were unfriendly.

                        1   2   3   4

16.   I enjoyed life.

                        1   2   3   4

17.   I had crying spells.

                        1   2   3   4

18.   I felt sad.

                        1   2   3   4

19.   I felt that people dislike me.

                        1   2   3   4

20.   I could not get "going."

                        1   2   3   4

Appendix F

Alcohol Use

1.   During the past 30 days, on how many days did you have at least one drink of alcohol?
   A. 0 days   E. 10 to 19 days
   B. 1 or 2 days   F. 20 to 29 days
   C. 3 to 5 days   G. All 30 days

2.   During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

   A. 0 days   D. 6 to 9 days
   B. 1 or 2 days   E. 10 to 19 days
   C. 3 to 5 days   F. 20 or more days

3.   During a **typical** 30 day period, on how many days did you have at least one drink of alcohol?

   A. 0 days   E. 10 to 19 days
   B. 1 or 2 days   F. 20 to 29 days
   C. 3 to 5 days   G. All 30 days

4.   During a **typical** 30 day period, how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

   A. 0 days   D. 6 to 9 days
   B. 1 or 2 days   E. 10 to 19 days
   C. 3 to 5 days   F. 20 or more days

5.   During a **typical** 30 day period in your senior year of high school (or year prior to entrance to college), on how many days did you have at least one drink of alcohol?

   A. 0 days   E. 10 to 19 days
   B. 1 or 2 days   F. 20 to 29 days
   C. 3 to 5 days   G. All 30 days

6.   During a **typical** 30 day period in your senior year of high school (or year prior to entrance to college), how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
   A. 0 days   D. 6 to 9 days
   B. 1 or 2 days   E. 10 to 19 days
   C. 3 to 5 days   F. 20 or more days

7.   How often do you think you have had at least one drink of alcohol compared to during your senior year of high school?
    A. Much less
    B. Less
    C. About the same
    D. More
    E. Much More

8.   How often do you think you have had 5 or more drinks of alcohol in a row (that is, within a couple of hours) compared to during your senior year of high school?
    A. Much less
    B. Less
    C. About the same
    D. More
    E. Much More

Appendix G

Sexual Behaviors

1. Have you ever had either vaginal or anal intercourse?
    1) No
    2) Yes

If you answered "Yes" to question 1, please answer number the following questions. If the answer to question 1 was "No" please skip to question 7.
2. Have you ever had either vaginal or anal intercourse since your arrival on campus?
    1) No
    2) Yes

3. At what age did you first have vaginal sex (in years)?
    _____

4. Have you ever had sex without a condom?
    1) No
    2) Yes

5. Have you ever had sex without a condom since your arrival on campus?
    1) No
    2) Yes

6. With how many different sexual partners have you had and NOT used a condom?
    1) 0
    2) 1
    3) 2 or more

7. With how many different sexual partners have you had and NOT used a condom since your arrival on your college's campus?
    1) 0
    2) 1
    3) 2 or more

8. During your MOST RECENT sexual experience, did you use a condom?
    1) No
    2) Yes

9. How many sexual partners have you had SINCE YOU ARRIVED ON YOUR COLLEGE'S CAMPUS?
       1) None
       2) 1
       3) 2-3
       4) 5 or more

10. Do you believe you have become more sexually active since arrival on your college's campus compared to your senior year of high school?
       1) No
       2) Yes