RELIGIOSITY AND SELF-HARMING BEHAVIOR: THE ROLE OF SOCIAL SUPPORT

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RELIGIOSITY AND SELF-HARMING BEHAVIOR: THE ROLE OF SOCIAL SUPPORT

Kristen G. Waters

A Thesis

Submitted to

The Graduate Faculty of

Auburn University Montgomery

In Partial Fulfillment of the

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[Social support, Religious orientation, Self-harming]

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Abstract

Background: Research has established the existence of protective factors between religiosity and social support in regards to maladaptive behaviors, including self-harm. **Objectives**: The objectives of this study were to 1) examine the relationship between religious orientation (e.g., intrinsic and extrinsic) and self-harming behavior, and 2) determine if social support mediated this relationship. **Methods**: This study utilized a cross-sectional data collection strategy to examine the relationship between social support, religious orientation, and self-harming among undergraduate (N= 235) students at a midsize southern university. Data collection occurred in 2014 and 2015. Participants completed a demographic questionnaire, the Interpersonal Support Evaluation List, the Deliberate Self-Harm Inventory and the Intrinsic/Extrinsic Religious Scale. **Results**: Correlation analyses revealed a marginally negative association between intrinsic religious orientation and self-harming. Analyses also revealed a positive association between intrinsic religious orientation and social support (i.e., appraisal, tangible, self-esteem, and belong support). Self-harming was revealed to have a negative association with the four types of social support. It was unexpectedly revealed that extrinsic-personal religious orientation was positively associated with two types of social support (i.e., self-esteem and belonging support), and negatively associated with self-harming. Regression analyses revealed that intrinsic and extrinsic-personal religious orientation were less associated with self-harming when race and religious orientation were controlled. **Conclusions**: Results suggest religious orientation and specific types of social support may serve as protective factors in regard to self-harming behaviors.

Keywords: Social support; religious orientation; self-harming

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Religiosity and Self-harming Behavior: The Role of Social Support

Self-harming behaviors are common and not fully understood. According to a survey conducted by the National Center for Injury Prevention and Control (2012), the United States had 201,450 reported cases of self-harming behaviors in individuals ages 15 to 29. Understanding these behaviors is imperative in order to implement effective interventions. To have a better understanding of self-harming behavior different aspects of an individual's life must be taken into consideration. An area to investigate is the role that certain aspects of religiosity have on an individual's engagement in self-harming behaviors. This study examined the association between religious orientation and self-harming behavior, and determined if social support moderates this relationship.

Religiosity and Health

A growing body of research has examined the effect of religion on different aspects of health. Previous research has found that religion confers many benefits on mental health. It has been found that "general religiousness and religious practices serve as a somewhat protective function against distress in Jewish and Christian religious communities" (Rosmarin, Krumrei, & Andersson, 2009). Robinson, Bolton, Rasic, and Sareen (2012) found that regularly attending religious services is associated with less anxiety and substance use. Regular church attendance, furthermore, helps protect against anxiety, as well as conduct disorders, in adolescents (Meltzer, Dogra, Vostanis, & Ford, 2011). It has been found that adolescents who do not find their religious practices to be important are at a greater risk of emotional disorders than those who have no religious affiliation; in this regard, religious attendance can act as a protective factor against conduct disorders because of the pro-social interaction with peers (Meltzer et al., 2001).

It has been postulated that social support gained from religion has beneficial effects for health (Tran, Kuhn, Walser, & Drescher, 2012).

Other aspects of religiosity that have an impact on the health of individuals is the intrinsic and extrinsic value individuals place on their religion. Individuals who have an intrinsic religious orientation are religious for the sake of being religious, while individuals who have an extrinsic religious orientation are religious for the benefits that religion can provide (Flere, Edwards, & Klanjsek, 2008). Gorsuch and McPherson (1989) further demarcate between extrinsic-social, which involves using religion to gain comfort (e.g., going to church to see friends), and extrinsic-personal, which involves using religion to gain comfort or peace (e.g., feeling comforted through prayer). Research has found that having a high level of extrinsic-social motivation can aid in improving the mental health of veterans who suffer from both Posttraumatic Stress Disorder (PTSD) and depression (Tran et al., 2012).

Most studies that focus on intrinsic and extrinsic religiosity, however, find that it is intrinsic religiosity that has more of a positive effect on an individuals' health (Wenger, 2011; Payman, George, & Rybuurn, 2008). When considering the amount of psychopathology experienced by young adults in college, it has been found that those with higher rates of intrinsic religiosity have lower rates of psychopathology (Power & McKinney, 2014). Intrinsic religiosity has also been shown to affect marital satisfaction. Brimhall and Butler (2007) found that a husband's degree of intrinsic religiosity is significantly associated with marital satisfaction for both spouses. This could result from gender differences. Typically, females are more focused on relationships than males, and as a result they are not as dependent on intrinsic religiosity to motivate behaviors

designed to sustain relationships as males are (Brimhall & Butler, 2007). According to Wenger (2011) intrinsic religiosity is connected with existential well-being (e.g., well-being that individuals gain from finding a purpose and ultimate meaning in life). Intrinsic religious orientation has been found to be inversely associated with depressive symptoms and positively associated with feelings of happiness and existential well-being (Wenger, 2011). Coinciding with these findings are results of previous research that indicate intrinsically religious preadolescents and adolescents have lower levels of depression than their nonreligious counterparts (Milevsky & Levitt, 2004). Beyond aiding in decreasing levels of depression in preadolescence and adolescence, research has found an association between intrinsic religiosity and anxiety. Specifically, intrinsic religiosity has been shown to have a negative correlation with several types of dying and death anxieties (Hui & Fung, 2009). Not only was there a negative correlation with dying and death anxiety, intrinsically religious individuals indicate having less anxiety toward the dying process and with an individual they are close to dying (Hui & Fung, 2009). Research conducted by Caplan, Sawyer, Holt, and Allman (2013), examining older adult cancer patients, found that those with an intrinsically religious outlook predicted their potential survival. This finding can be explained by the fact that having religious feelings offers individuals hope, thereby increasing the desire to live (Caplan et al., 2013). Another study conducted by Payman et al. (2008) found that intrinsic religiosity correlates with social support for older adults who have been diagnosed with depression. The social support that older adults gain from their religious community plays a significant role during the recovery period of depression (Payman et al., 2008) that might not otherwise be available.

Previous research has also looked at how religion can impact substance use. Most prior research establishes that religion may protect against substance use. Previous research has found that intrinsic religiosity reduces the likelihood of substance use (e.g., alcohol, marijuana, and other drugs) among intercollegiate athletes (Storch, Storch, Kovacs, Okun, & Welsh, 2003). This effect goes beyond collegiate involvement. Ellison, Barrett, and Moulton (2008) found that married religiously conservative people who attend religious services regularly are less likely to be problem drinkers than their unmarried counterparts. This study also found that religiously non-conservative men who are married to religiously conservative women are also less likely to be problem drinkers than those who are unmarried and religiously non-conservative (Ellison et al., 2008). The reason for this may be that those married to religiously conservative individuals have someone to help monitor their health behaviors; religiously conservative individuals are more likely to adhere to their traditional religious beliefs and values, and enforce such beliefs and values in their home. It has also been found that intrinsically religious individuals are less likely to smoke tobacco and consume alcohol (Masters & Knestel, 2011; Brizer, 1993). The reason for this may be that those who have an intrinsic religious orientation are more likely to abide by their religious doctrines and values than those who are not. In this regard, individuals who no longer have religious faith have been found to be more likely to use stimulants than currently religious individuals (Brizer, 1993). Moreover, intrinsic religious orientation has been associated with greater self-control (Bergin, Masters & Richards, 1987). The present study expectd that intrinsic religious orientation is associated with lower levels of self-harming behavior.

Social Support and Health

A great deal of research has been done to investigate the role of social support in a wide range of aspects of life. For the purpose of this study there are four types of social support of interest: tangible support, belonging support, self-esteem support, and appraisal support. Tangible support is the availability an individual has to material aid; belonging support is the availability of other individuals to do things with; self-esteem support is the availability to make a positive comparison to another individual; and appraisal support is the availability of another individual that one can discuss one's problems with (Cohen & Hoberman, 1983). While these four types of social support were of interest in the present study, the main focus was to examine the role social support plays alongside religiosity and self-harming behaviors.

Studies have shown that an individual's religious community may offer a wider social network that may not be found outside of these communities; this particular benefit may be extremely important, as it is well established that social support has beneficial effects on health (Rosmarin et al., 2009; Robinson et al., 2012; Meltzer et al., 2011; Tran et al., 2012; Ellison et al., 2008; Moexy et al., 2011). Research has shown that the social support gained from intrinsic religiosity moderates the effects of physical health on depression in non-Orthodox and Orthodox Jews (Pirutinsky et al., 2011). While there is evidence that intrinsic religiosity offers a moderating effect for both of these denominations, having higher intrinsic religiosity was related to higher social support only in non-Orthodox Jews (Piruntinsky et al., 2011). This difference in the effect of social support can be explained by the differences in each denomination in regards to the value placed on certain religious beliefs. The effects of intrinsic religiosity on social

support has also been shown for older adults. A study conducted by Koenig (1998) found that social support among older adults is associated with intrinsic religiosity and with religious coping. Such findings suggest that the religious beliefs and attitudes of older adults may enhance perceived social support in the way that it promotes involvement in the religious community or generally enhancing sociability (Koenig, 1998). A study conducted by Commerford and Reznikoff (1996) found that religiosity and social support gained from families is strongly connected for older adults residing in nursing homes. Specifically, older women who attended religious services frequently before entering into a nursing home have a higher perception of social support from their families than those who attended religious services infrequently (Commerford & Reznikoff, 1996).

Previous research has looked extensively at the effects of social support on physical health. From a longitudinal stand point having greater social support has been shown to offer a protective effect for physical health (Lachman & Agrigoroaei, 2010). There also is evidence that moderately and severely obese men who have strong social support have no impairment in quality of life in regard to their quality of life (Wiczinski, Doring, John, & von Lengerke, 2009). A reason for this could be because the majority of men were married, and other research has shown that married men are better able to manage their health concerns than their unmarried counterparts (Ellison et al., 2008). Social support gained from a spouse has been shown to influence physical health in other ways. In this regard, Uchino et al. (2013) found that there is a greater risk of cardiovascular inflammation when a spouse is ambivalent in regard to offering support. Social support has also been found to have protective effects in regard to managing symptoms of chronic illnesses. Individuals living with HIV/AIDS who are satisfied with

their social support, for example, experience fewer physical health symptoms over time (Ashton et al., 2005). These studies illuminate the salubrious effects of social support for individuals.

The effect that social support has on an individual's life has also been examined in regard to health behaviors. In this regard, it has been found that when homeless youths have contact with caring adults they are less likely to use substances than those who do not have such contact (Ferguson & Xie, 2012). Previous research has also found that mothers who feel that they have adequate social support are less likely to regulate the stress of parenting with alcohol (Handley & Chassin, 2008). The reason for this may be because individuals who do not have a supportive social circle will likely use maladaptive coping strategies to manage stress levels. Research has also found that general social support is associated with a higher likelihood of smoking cessation among women (Holahan et al., 2012). This may be because significant others (e.g., friends and family) offer support that aids individuals in engaging in more health improving behaviors. One goal of the present study is to determine whether social support mediates the relationship between religious orientation and self-harming behavior.

Self-harming Behavior

While previous research has found an effect of religion on most aspects of health there has been a limited amount of research done on the effect religion has on certain maladaptive behaviors, including self-harming behavior. Self-harm is also referred to as: non-suicidal self-injury, self-mutilation, and self-injury (Franklin et al., 2010; Nock & Prinstein, 2004). Self-harm is usually defined as the deliberate destruction of the body tissue without the intent to commit suicide (Nock & Prinstein, 2005; Brausch &

Gutierrez, 2010). There are a wide range of behaviors that fit into this definition and include, but are not limited to: cutting, burning the skin, head banging, wound picking, and pinching. Previous research on self-harming behavior have produced inconsistent findings, particularly in regard to factors that influence self-harming behavior. In this regard, Bakken and Gunter (2012) found that African American students are less likely to engage in self-harming behaviors, other research, however, found that African Americans in middle school were more likely to self-harm than other students (Gratz, et al., 2011).

While such inconsistencies exist in the literature, there has been some agreement regarding self-harming behavior. It has been generally found, for example, that females engage in self-harm more than males (Lukkanen et al., 2009; Borrill, Fox, & Roger, 2011; Portzky, De Wilde, & van Heeringen, 2008). The lack of consistent findings has made it difficult to really understand the dynamics of self-harming behavior.

To gain a better understanding of self-harming behavior, it would be beneficial to look at the effect religion can have on such behaviors. Research that has been done on the effect of religion on self-harming behavior has revealed interesting findings. For example, Borrill et al. (2011) found that people who report a religious affiliation were not as likely to report repeated self-harming behavior as compared to those with no religious affiliation. Research also shows that in homes where there are expectations that religious values and beliefs be adhered to, children can struggle to express themselves and internalize their emotions as a result, which can lead to self-harming behavior and low mood (Meltzer et al., 2011). There has been no clear evidence as to what factors pertaining to religiosity actually act as the protective factors against self-harming behaviors.

Present Study

The present study hoped to build on the limited literature examining the effect that religion has on self-harming behavior. The objectives of the present study were: 1) to examine the relationship between both intrinsic and extrinsic religious orientation and self-harming behavior; and 2) to determine if social support mediates the relationship between religious orientation and self-harming behavior. Based on previous research I hypothesized that 1) individuals who score higher on intrinsic religiosity will self-harm less than individuals who score higher on extrinsic religiosity: and 2) those with an intrinsic religious orientation will experience a greater degree of social support, and hence, will engage in less self-harming behavior.

Method

Participants

Participants were recruited from the undergraduate Introduction to Psychology classes of Auburn University at Montgomery (AUM). Participants received credit in partial fulfillment of course requirements for participating in the study. Students were offered other means by which they could meet their course requirements if they did not wish to take part in this study, thus there was no coercion.

The sample (N = 235; 79.6% female) represented a diverse background of individuals from varied races, socioeconomic backgrounds and religious affiliations. The sample was almost evenly distributed between Caucasian (46.4%) and African American (43.8%) participants. There was nearly an even distribution regarding the participants' income. The majority of participants were in the range of 20,001-40,000 (23.4%) dollars per year and 0-20,000 (22.1%) dollars per year, with the remaining 51% ranging from

40,001- >100,000 per year. The majority of the sample was made up of college freshmen (63.4%). Nearly all of the participants indicated that they were single (92.8%). The participants were asked to endorse their religious affiliation from a provided list which indicated several Christian denominations (e.g., Catholic, Protestant, Methodist, etc.), Judaism, Buddhism, Hinduism, Atheism/Agnostic, and Other Faith Tradition. The present sample indicated Baptist (48.5%) and Non-denominational (16.2%) faith traditions being the most widely endorsed.

Procedure

Approval was attained from the Institutional Review Board (IRB) prior to commencing data collection. Participants were able to register to take part in this research from a provided list of dates and times that was made available through the SONA systems website. Participants were run in groups of ten. After providing an Informed Consent, participants completed questionnaires in counterbalanced order. Participants under the age of 19 provided a parental consent form before completing questionnaires.

Measures

Participant Demographic Questionnaire: This questionnaire assesses the participants' age, race, gender, class, marital status, and religious affiliation (e.g. Christian, Muslim, Buddhist, etc.).

Intrinsic/Extrinsic Scale: The Intrinsic/Extrinsic Scale (I/E Scale) measures participants' intrinsic and extrinsic religious orientation (Gorsuch & McPherson, 1989). This measurement uses a 14-item format on a 5-point scale (e.g., 1= Strongly Agree to 5= Strongly Disagree), with eight items measuring intrinsic religious orientation and six items measuring extrinsic religious orientation. Furthermore, three items on the Extrinsic

Religious Orientation scale measure extrinsic-social orientation and three measure extrinsic-personal orientation. Items were reverse-scored so that higher scores indicated a higher level of intrinsic and extrinsic religious orientation. Three items on the Intrinsic Religious Orientation Scale were reverse-coded a second time, per scale instructions. This scale has a reliability of 0.82 and 0.66 for the intrinsic and extrinsic values respectively.

Interpersonal Support Evaluation List: The Interpersonal Support Evaluation List (ISEL) is a 40-item scale consisting of four subscales (e.g., Tangible Support, Belonging Support, Self-Esteem Support, and Appraisal Support; Cohen, & Hoberman, 1983). Statements are rated on a 4-point true/false scale (e.g., 0= Definitely False to 3= Definitely True). The four subscales have a reliability of .77, .60, .75, and .71 respectively, and the entire scale has a reliability of 0.77 (Cohen, & Hoberman, 1983).

Deliberate Self-Harm Inventory: The Deliberate Self-Harm Inventory (DSHI) is a 17-item, behaviorally-based, self-report questionnaire (Gratz, 2001). Items are rated dichotomously (e.g., yes= 1, no= 0) based on participants' endorsement of items. The DSHI has high internal consistency (alpha= .82), and the items needle-sticking and skin-cutting have item-total correlations ranging from r_b= .65 and r_b= .63, respectively (Gratz, 2001).

Results

Bivariate correlation analyses were performed to analyze first-order associations among religious orientation, social support, and self-harm variables. All correlations presented in Table 2 represent Spearman's rho to analyze associations between variables, as the self-harming variable; was significantly skewed (3.07). A Zero-inflated Poisson

Regression was used to further examine the association between religious orientation and self-harming.

As evident in Table 2, a weak but significant negative association was found between extrinsic-personal religious orientation and self-harming. Intrinsic religious orientation was marginally negatively associated with self-harming. Intrinsic religious orientation was significantly positively associated with appraisal, tangible, self-esteem, and belonging support, while extrinsic religious orientation was positively associated with belonging support. Extrinsic-personal religious orientation was significantly positively associated with self-esteem and belonging support. Appraisal, tangible, self-esteem, and belonging support were all found to be significantly negatively associated with self-harming.

Associations among demographic and self-harming variables were examined using bivariate correlational analyses. Demographic variables with more than one category were converted into dichotomous variables prior to analysis. Marital status was recoded into single and divorced ("0")/married ("1"); race was recoded into white ("0")/non-white ("1"); and religious affiliation was recoded into Christian ("0")/Other Faith Tradition ("1"). Family income was assessed as a categorical variable (0= $20,000/year through 5= >$100,000); this variable was not recoded into a dichotomous variable, since higher categorical values indicate higher income brackets. Academic class was also assessed as a categorical variable, with higher values indicating higher class (0= freshman; 1= sophomore; 2= junior; 3= senior). Race and religious affiliation were significantly associated with self-harming behavior, and thus, were controlled for in regression analyses.

Associations between both intrinsic religious orientation and extrinsic-personal religious orientation were further analyzed in regression analyses. A Zero-inflated Poisson regression was used to accommodate the non-parametric distribution of the self-harming variable, which included a high frequency of "0" responses. As evident in Table 3, extrinsic-personal religious orientation was no longer significantly associated with self-harming after controlling for race and religious orientation. Furthermore, intrinsic religious orientation became less significantly associated with self-harming after controlling for race and religious affiliation.

Baron and Kenny (1986) proposed four requirements that must be met in order to infer mediation: 1) the independent variable (IV) is significantly associated with the mediator; 2) the IV is significantly associated with the dependent variable (DV) in the absence of the mediator in the model; 3) the mediator is significantly associated with the DV; and 4) the association between IV and DV is reduced to insignificance when the mediator is added to the model. The purported relationships among religious orientation (IV), social support (mediator), and self-harming (DV) did not meet these requirements. Hence, mediation analyses were not performed.

Discussion

The main objectives of this study were twofold. The first objective was to examine the relationship between religious orientation and self-harming behavior, while the second objective was to determine if social support mediates the relationship between these two variables. I hypothesized that 1) those higher in intrinsic religiosity would self-harm less, and 2) such individuals would experience a greater degree of social support, and such social support would protect against self-harming behavior. The first hypothesis

was partially supported, as intrinsic religious orientation was found to be marginally negatively associated with self-harming. This implies that individuals who are more intrinsically religious are slightly less likely to take part in self-harming behaviors than other individuals. This fits with general findings that suggest having an intrinsic religious orientation aids in overall well-being (Wenger, 2011; Payman, George, & Rybuurn, 2008; Power & McKinney, 2014; Brimhall & Butler, 2007).

The second hypothesis was partially supported, as the results revealed that a higher intrinsic religious orientation was significantly positively associated with the four types of social support (e.g., appraisal, tangible, self-esteem, and belonging) examined in this study, suggesting that individuals with a greater intrinsic religious orientation have a wider range of social support available to them than other individuals. The results from this study are consistent with the findings of previous research that examined the role of intrinsic religious orientation on social support (Pirutinsky et al., 2011; Koenig, 1998). It is possible that being intrinsically religious results in greater internalization of religious beliefs than being extrinsically religious; this internalization appears to lead to a greater degree of social support from the religious community. Moreover, it was found that individuals who had more perceived social support in all areas of interest are less likely to take part in self-harming behaviors than those who do not have the same degree of social support, providing further evidence that social support represents a protective factor against maladaptive behaviors (Ferguson & Xie, 2012; Handley & Chassin, 2008; Holahan et al., 2012).

Upon further inspection of the present data an unexpected finding was discovered. It was found that having a higher extrinsic-personal religious orientation was

significantly positively associated with both self-esteem and belonging support. Such a finding appears to imply that individuals that use religion as a means of comfort and peace are more likely to have a greater degree of social support in certain areas. It was also found that individuals who were higher in extrinsic-personal religious orientation were less likely to self-harm than others, which indicates that using religion for comfort and peace can help protect against maladaptive behaviors. While intrinsic religious orientation has traditionally been associated with more positive outcomes than has extrinsic religious orientation, some studies have provided support for the protective value of extrinsic religiosity. In this regard, Tran et al. (2012) found that having an extrinsic-social religious orientation can improve the mental health of veterans with PTSD and depression.

Further analyses were conducted on the data to control for race and religious affiliation. Once these two factors were controlled, intrinsic religious orientation became even less significantly associated with self-harming, and extrinsic-personal religious orientation also lost its significance in relation to self-harming. This loss of significance appears to indicate that race and religious affiliation play a role in the frequency of self-harming behaviors; it was beyond the scope of the current study to examine this role. Due to the fact that the relationships among religious orientation, social support, and self-harming did not meet the requirements to perform mediation analyses, none were conducted. It is possible that, even though various forms of social support were all significantly associated with self-harming, social support is not the vehicle through which religious orientation exerts its effects on self-harming.

Limitations and Future Directions

There are several limitations that must be taken into consideration with the present study. First, the sample was demographically skewed with the majority of participants being female college students. Second, due to the variables of interest (e.g., self-harming) in this study there is potential for underreporting. Given the nature of self-harming, participants may have been unwilling to fully disclose such behaviors, resulting in an underestimation of this particular behavior.

Despite limitations, the present study offers plenty of opportunities for future research. Further research is needed to clarify the association between appraisal, tangible, self-esteem, and belonging support and self-harming behavior. Previous research has examined the role of social support with regards to self-harming, but there is limited research that has examined the influence that specific types of social support have on such behaviors. Another area of interest is the role of extrinsic-personal religious orientation on self-harming behavior. The present study appears to imply that extrinsic-personal religiosity offers an unexpected protective influence against such behavior. Research that examines the role of particular religious orientations on self-harming behavior is limited, though current research offers promising results.

The present study offers an important contribution to the limited amount of literature examining religious orientation, social support and self-harming. The current findings suggest that individuals with high levels of intrinsic and extrinsic-personal religious orientation are less likely to engage in self-harming than individuals high in extrinsic-social orientation, and they are likely to have higher levels of perceived social support. The findings also suggest that individuals who experience a greater degree of

perceived social support, in varying forms, are less vulnerable to engaging in self-harming behaviors than other individuals. Such findings offer preliminary results for the protective effects that both religious orientation and specific types of social support have with regard to self-harming behaviors.

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Table 1

Descriptive Statistics for Religious Orientation, Social Support, and Self-Harming Variables

Variable	**M (range)**	**Standard Deviation**	**Cronbach's Alpha**
IRO	27.33 (11-40)	6.37	.79
ERO	17.04 (6-28)	4.06	.69
ERO-Social	5.75 (3-13)	2.27	.72
ERO-Personal	11.30 (3-15)	2.80	.69
Appraisal Support	24.72 (5-30)	5.10	.83
Tangible Support	25.01 (4-30)	4.48	.80
Self-Esteem Support	21.93 (5-30)	4.27	.73
Belonging Support	23.72 (2-30)	5.45	.84
Self-Harming	.45 (0-6)	1.11	.69

Note: **IRO** = Intrinsic religious orientation; **ERO** = Extrinsic religious orientation

Table 2

Spearman Rho Correlations among Religious Orientation, Social Support, and Self-Harming Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. IRO	-----	.24**	.15*	.24**	.17**	.32**	.29**	.19**	-.11
2. ERO	.24**	-----	.73**	.79**	.05	.01	.08	.13*	-.04
3. ERO-Social	.15*	.73*	-----	.20**	-.30	-.04	-.03	.03	.07
4. ERO-Personal	.24**	.79*	.20**	-----	.11	.08	.15*	.17**	-.13*
5. Appraisal Support	.17**	.05	-.03	.11	-----	.62**	.47**	.66*	-.18**
6. Tangible Support	.32**	.01	-.04	.08	.62**	----	.53**	.71**	-.19**
7. Self-Esteem Support	.29**	.08	-.03	.15*	.47**	.53**	-----	.57**	-.21**
8. Belonging Support	.19**	.13*	.03	.17**	.66**	.71**	.57**	-----	-.23**
9. Self-Harming	-.11$^{\Psi}$	-.04	.07	-.13*	-.18**	-.19**	-.21**	-.23**	-----

**p < .01
*p < .05
Ψp <.10

Note: **IRO** = Intrinsic religious orientation; **ERO** = Extrinsic religious orientation

Table 3

Regression Analyses for Extrinsic-personal Religious Orientation and Self-Harming

	B	**SE**	**Wald-Chi Square**
Outcome Variable: Self-Harming			
Block 1			
Race	-.88*	.369	5.69
Religious Affiliation	.57	.403	2.02
Block 2			
ERO-personal	-.06	.041	2.15

**p < .01
*p < .05

Note: **ERO** = Extrinsic religious orientation

Table 4

Regression Analyses for Intrinsic Religious Orientation and Self-Harming

	B	SE	Wald-Chi Square
Outcome Variable: Self-Harming			
Block 1			
Race	-1.03**	.374	7.55
Religious Affiliation	.55	.415	1.76
Block 2			
Intrinsic Religious Orientation	-.03	.016	2.26

**p < .01
*p < .05

Appendix A-1a

Informed Consent Form- (People over 19)

Auburn University at Montgomery (Department of Psychology)

INFORMED CONSENT
Concerning Participation in a Research Study

Life Experience and Adjustment

You are invited to participate in a study of life experience and adjustment.

Research Purpose & Procedures:
We hope to learn if certain life experiences affect adjustment, specifically in regard to self-harming behavior. You were selected as a possible participant because you are enrolled in an Introduction to Psychology course. If you decide to participate, I, Kristen Waters, Clinical Psychology graduate student, or my co-investigators, will provide you with questionnaires to be complete. This study should only take 1 hour of your time.

Risks or Discomforts/Potential Benefits:
It is possible that you may experience some distress answering questions regarding self-harming behaviors. You may skip any questions that make you uncomfortable. Information for the AUM Counseling Center also is provided below.

You will earn 1 PREP credit for participating in this study.

Provisions for Confidentiality:
No individuals will be identified; only group summaries will be recorded and published.

Contacts for Additional Information:
Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigator, Kristen Waters, at kwaters2@aum.edu or (334) 322-1654. If you have any questions about your rights as a volunteer in this research, contact Debra Tomblin, Research Compliance Manager, AUM, 334-244-3250, dtomblin@aum.edu.

If you experience any stress or discomfort and need to speak with a professional, please contact the campus Counseling Center (334-244-3469; counselingcenter@aum.edu).

Voluntary Participation & the Right to Discontinue Participation without Penalty:

If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty. If you decide later to withdraw from the study, you may also withdraw any information that has been collected about you. Your decision whether to participate will not prejudice your future relations with Auburn University at Montgomery. The researcher may discontinue the study at any point. The researcher may terminate your participation from the project at any point.

We will give you a copy of this consent form to take with you.

YOU ARE MAKING A DECISION WHETHER TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TOPARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Participant's signature & Date

_____ _____

Investigator's signature

_____

Appendix A-1b

Informed Consent Form-(People under 19)

Informed Parental Consent

For Research Project Entitled: Life Experience and Adjustment

Auburn University at Montgomery (Psychology Department)

Date _____

Dear Parents,

Your child has been invited to participate in a study of various life experiences and adjustment.

Research Purpose & Procedures:

We hope to learn if certain life experiences influence adjustment, particularly in regard to self-harming behavior. Your child was selected as a possible participant because they are enrolled in an Introduction to Psychology course. If you decide to allow your child to participate, I, Kristen Waters, Clinical Psychology graduate student, or my co-investigators, will provide your child with questionnaires to complete. The study should only take 1 hour of your child's time. Your child will not leave the classroom for any activity.

Risks and Benefits:

There is a risk of breach of confidentiality. However, we will take appropriate steps to assure privacy of these records. To reduce the possibility of a breach of confidentiality with grades and information; when I turn my work into AUM I will change all of the names to protect their privacy.

- I will be happy to share the results of our project with you when the study is complete.
  We may try to get our project published in a journal. But, even if I do, I will still keep all names changed in any journal or presentation.
- You or your child will not receive any money for participating. There will be no cost for your child to participate in this project.
- Your child will receive 1PREP credit toward meeting the requirements for the Introduction to Psychology course.
- Your child may experience a minimal amount of distress while participating in this study, due to answering sensitive questions pertaining to self-harming behavior. Your child will be provided with the contact information for the campus Counseling Center should they feel the need to speak with a professional.

Participation is voluntary:

- If you first give me permission to include your child in our project and later change your mind that is fine. Just let me know and we will remove their information.
- If your child does not wish to participate, there will be no pressure to continue.

- Your child's relationship with the school will not be affected now or in the future by your decision.

Contact Information: If you have any questions please contact me at kwaters2@aum.edu or (334) 322-1654. If you have questions about your child's rights as a participant you may contact Debra Tomblin (Research Compliance Manager) at AUM 334.244-3250 or dtomblin@aum.edu.

_____
Student's name, School

Please indicate whether or not you wish to allow your child to participate in this project by checking one of the statements below. Sign your name and return this page to school. I will make you a copy of this letter and return it to you.

_____ I grant permission for my child to participate in my AUM project.
_____ I do not grant permission for my child to participate in my AUM project.

_____ _____
Signature of Parent/Guardian Print Child's Name

Date _____

Appendix A-1c

Demographic Questionnaire

Demographics Questionnaire

1. **Age:** _____

2. **Sex:** _____Male _____Female

3. **Ethnicity:**

a) Are you Hispanic or Latino? ____No ____Yes

b) Which of the following best describes your race?

_____White _____Biracial/multiracial

_____Black or African American

_____Asian

_____American Indian or Alaskan Native

_____Native Hawaiian or Pacific Islander

4. **Class:** _____Freshman _____Sophomore _____Junior _____Senior

5. **Marital Status:**

_____Single _____Divorced

_____Married _____Separated

6. **Family Income:**

_____0-20,000/year

_____20,001-40,000/year

_____40,001-60,000/year

_____60,001-80,000/year

_____80,001-100,000/year

_____>100,000/year

7. **Religious Affiliation:**

_____Catholic

_____Protestant

_____Lutheran

_____Baptist

_____Methodist

_____Evangelical

_____Episcopal

_____Other Christian

_____Jewish

_____Buddhist

_____Muslim

_____Hindu

_____Mormon

_____Unitarian

_____Atheist/Agnostic

_____Other Faith Tradition

_____Non-denominational

8. **Church Attendance:** How often do you attend church?

____1x/week

____1x/month

____1-11 times/year

____Never

Appendix A-1d

Social Support Questionnaire

ISEL

INSTRUCTIONS: This scale is made up of a list of statements, each of which may or may not be true about you. For each statement check "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should check "definitely false" if you are sure the statement is false and "probably false" if you think it is false but are not absolutely certain.

1. There are several people that I trust to help solve my problems.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

2. If I needed help fixing an appliance or repairing my car, there is someone who would help me.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

3. Most of my friends are more interesting than I am.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

4. There is someone who takes pride in my accomplishments.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

5. When I feel lonely, there are several people I can talk to.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

6. There is no one that I feel comfortable to talking about intimate personal problems.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

7. I often meet or talk with family or friends.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

8. Most people I know think highly of me.
   ___definitely true (3) ___definitely false (0)
   ___probably true (2) ___probably false (1)

9. If I needed a ride to the airport very early in the morning, I would have a hard time finding someone to take me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

10. I feel like I'm not always included by my circle of friends.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

11. There really is no one who can give me an objective view of how I'm handling my problems.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

12. There are several different people I enjoy spending time with.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

13. I think that my friends feel that I'm not very good at helping them solve their problems.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

14. If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

15. If I wanted to go on a trip for a day (e.g., to the mountains, beach, or country), I would have a hard time finding someone to go with me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

16. If I needed a place to stay for a week because of an emergency (for example, water or electricity out in my apartment or house), I could easily find someone who would put me up.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

17. I feel that there is no one I can share my most private worries and fears with.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

18. If I were sick, I could easily find someone to help me with my daily chores.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

19. There is someone I can turn to for advice about handling problems with my family.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

20. I am as good at doing things as most other people are.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

21. If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

22. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

23. If I needed an emergency loan of $100, there is someone (friend, relative, or acquaintance) I could get it from.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

24. In general, people do not have much confidence in me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

25. Most people I know do not enjoy the same things that I do.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

26. There is someone I could turn to for advice about making career plans or changing my job.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

27. I don't often get invited to do things with others.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

28. Most of my friends are more successful at making changes in their lives than I am.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

29. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

30. There really is no one I can trust to give me good financial advice.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

31. If I wanted to have lunch with someone, I could easily find someone to join me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

32. I am more satisfied with my life than most people are with theirs.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

33. If I was stranded 10 miles from home, there is someone I could call who would come and get me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

34. No one I know would throw a birthday party for me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

35. It would be difficult to find someone who would lend me their car for a few hours.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

36. If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

37. I am closer to my friends than most other people are to theirs.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

38. There is at least one person I know whose advice I really trust.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

39. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

40. I have a hard time keeping pace with my friends.
___definitely true (3) ___definitely false (0)
___probably true (2) ___probably false (1)

Appendix A-1e

Self-harming Questionnaire

DSHI

Instructions: This questionnaire asks about a number of different things that people sometimes do to hurt themselves. Please be sure to read each question carefully and respond honestly. Often, people who do these kinds of things to themselves keep it a secret, for a variety of reasons. However, honest responses to these questions will provide us with greater understanding and knowledge about these behaviors and the best way to help people. Please answer "yes" to a question only if you did the behavior intentionally, or on purpose, to hurt yourself. Do not respond "yes" if you did something accidentally (e.g., you tripped and banged your head on accident). Also, please be assured that your responses are completely confidential.

1. Have you ever intentionally (i.e., on purpose) cut your wrist, arms, or other area(s) of your body (without intending to kill yourself)? (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

2. Have you ever intentionally (i.e., on purpose) burned yourself with a cigarette (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

3. Have you ever intentionally (i.e., on purpose) burned yourself with a lighter or a match? (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

4. Have you ever intentionally (i.e., on purpose) carved words into your skin? (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

5. Have you ever intentionally (i.e., on purpose) carved pictures, designs, or other marks into your skin? (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury sever enough to require medical treatment? _____

6. Have you ever intentionally (i.e., on purpose) severally scratched yourself, to the extent that scarring or bleeding occurred? (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

7. Have you ever intentionally (i.e., on purpose) bit yourself, to the extent that you broke the skin? (circle one):
   1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted I hospitalization or injury severe enough to require medical treatment? _____

8. Have you ever intentionally (i.e., on purpose) rubbed sandpaper on your body? (circle one):

    1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

9. Have you ever intentionally (i.e., on purpose) dripped acid onto your skin? (circle one):

    1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

10. Have you ever intentionally (i.e., on purpose) used bleach, comet, or oven cleaner to scrub your skin? (circle one):

    1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

11. Have you ever intentionally (i.e., on purpose) stuck sharp objects such as needles, pins, staples, etc. into your skin, not including tattoos, ear piercing, needles used for drug use, or body piercing? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

12. Have you ever intentionally (i.e., on purpose) rubbed glass into your skin? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many time have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

13. Have you ever intentionally (i.e., on purpose) broken your own bones? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

14. Have you ever intentionally (i.e., on purpose) banged your head against something, to the extent that you caused a bruise to appear? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

15. Have you ever intentionally (i.e., on purpose) punched yourself, to the extent that you caused a bruise to appear? (circle one):

    1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

16. Have you ever intentionally (i.e., on purpose) prevented wounds from healing? (circle one):

    1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

17. Have you ever intentionally (i.e., on purpose) done anything else to hurt yourself that was not asked about in this questionnaire?
    1. Yes 2. No

If yes, what did you do to hurt yourself?

_____

_____

If yes,

How old were you when you first did this? _____

How many times have you done this? _____

When was the last time you did this? _____

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? _____

Appendix A- 1f

Religiosity Questionnaire

I/E Scale

Instructions: Please use the below scale to respond to each of the questions.

1 = Strongly Agree
2 = Agree
3 = Not Sure
4 = Disagree
5 = Strongly Disagree

1. I enjoy reading about my religion. ____
2. I go to church because it helps me to make friends. ____
3. It doesn't much matter what I believe so long as I am good. ____
4. It is important to me to spend time in private thought and prayer. ____
5. I have often had a strong sense of God's presence. ____
6. I pray mainly to gain relief and protection. ____
7. I try hard to live all my life according to my religious beliefs. ____
8. What religion offers me most is comfort in times of trouble and sorrow. ____
9. Prayer is for peace and happiness. ____
10. Although I am religious, I don't let it affect my daily life. ____
11. I go to church mainly to spend time with my friends. ____
12. My whole approach to life is based on my religion. ____
13. I go to church mainly because I enjoy seeing people I know there. ____
14. Although I believe in my religion, many other things are more important in life. ____