RELIGIOSITY AS A PROTECTIVE FACTOR AGAINST SEXUAL AGGRESSION

by
Dana Hastings

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
October 27, 2008

Approved by

Date Approved 10/20/08

© 2008 Dana Hastings
ABSTRACT

Dana Hastings
RELIGIOSITY AS A PROTECTIVE FACTOR AGAINST SEXUAL AGGRESSION
2008
Dr. DJ Angelone
Mental Health Counseling and Applied Psychology

The potential protective nature of religiosity against sexual aggression was investigated. This was accomplished by using a laboratory analogue of sexual harassment that uses sexually oriented joke telling to mimic sexual harassment among peers in the real world. It was hypothesized that religiosity would predict the number of jokes told by participants such that individuals with higher rates of religiosity would tell fewer jokes than those with lower rates of religiosity. There was a total of 76 participants that answered questionnaires about their religiosity and took part in the joke telling laboratory analogue. Linear regressions indicated no such predictive relationship between religiosity and the number of jokes told by participants. The findings are incongruent with the research on religiosity’s relationship with aggression and sexual behaviors and attitudes.
TABLE OF CONTENTS

List of Tables iv

CHAPTER PAGE

I. Introduction 1

II. Methods 10

Participants 10

Measures 10

Multidimensional Measurement of Religiousness/Spirituality 10

Marlowe-Crowne Social Desirability Scale 11

Procedure 11

III. Results 14

Descriptive Data 14

Planned Analyses 14

Post Hoc Exploratory Analyses 15

IV. Discussion 17

REFERENCES 21

APPENDICES 25

A. Table 1 Descriptive Data for the MMRS Subscales 25

B. Table 2 Joke Frequencies 26

C. Table 3 Correlation Table for Number of Jokes, SDS and MMRS 27

D. Table 4 Means(Standard Deviations) for Experimenters and Confederates 28

E. Table 5 Summary of Linear Regression Analysis for Variables Predicting Number of Jokes Told (N=76) 29
F. Table 6 Summary of Linear Regression Analysis for Variable Predicting Number of Jokes Told Using the new Single Religiosity Scale (N=76)
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Descriptive Data for the MMRS Subscales</td>
<td>25</td>
</tr>
<tr>
<td>Table 2</td>
<td>Joke Frequencies</td>
<td>26</td>
</tr>
<tr>
<td>Table 3</td>
<td>Correlation Table for Number of Jokes, SDS and MMRS</td>
<td>27</td>
</tr>
<tr>
<td>Table 4</td>
<td>Means(Standard Deviations) for Experimenters and Confederates</td>
<td>28</td>
</tr>
<tr>
<td>Table 5</td>
<td>Summary of Linear Regression Analysis for Variables Predicting Number of Jokes Told (N=76)</td>
<td>29</td>
</tr>
<tr>
<td>Table 6</td>
<td>Summary of Linear Regression Analysis for Variable Predicting Number of Jokes Told Using the new Single Religiosity Scale (N=76)</td>
<td>30</td>
</tr>
</tbody>
</table>
CHAPTER 1

Introduction

Acts of sexual aggression are an ever-present problem in society. Both fictional and real life acts of sexual aggression can be found in the media through news reports, books and film. These acts can take on a number of different forms and typically include sexual abuse, molestation, rape, attempted rape, sexual coercion, and sexual assault (Spitzberg, 1999). However, there are other milder forms of sexual aggression that are often overlooked as acts of sexual aggression. Researchers have found that many of the characteristics linked to the more severe acts of sexual aggression (e.g. hostility and authoritarianism) are also linked to the milder acts of sexual aggression (e.g. sexual harassment) (Begany & Milburn, 2002). Thus, many researchers have begun to conceptualize sexual aggression to exist on a continuum of severity. The more aggressive acts on the continuum include those listed above, while some of the milder but still serious acts on the continuum include sexual harassment, sexually offensive comments and sexually oriented joke telling (Fitzgerald et al., 1988; Mitchell, Angelone, Hirschman, Lilly & Nagayama Hall, 2002).

Researchers have attempted to quantify the incidence rates of sexual aggression. It is estimated that between 5-88% of women have been victims of some form of sexual aggression at some point in their lives (Begany & Milburn, 2002; Hughes & Sandler, 1988; Spitzberg, 1999). About 13% of women have been raped in their life and a little more than 18% have experienced attempted rape (Spitzberg, 1999). A study on college women found that up to 70% reported being sexually harassed either by peers or
Researchers have created a large literature identifying the contributing and protective factors for sexual aggression. Factors often associated with sexual aggression include a variety of developmental factors, personality characteristics and situational factors. Contributing factors tend to include low socioeconomic status, history of childhood abuse, alcohol or drug use, high number of sexual partners, and a history of delinquency and sexual aggression (Carr & VanDeusen, 2004; Malamuth, Linz, Heavey, Barnes & Acker, 1995; Nagayama Hall, Windover, & Maramba, 1998). Protective factors, on the other hand, include higher socioeconomic status, no history of childhood abuse, no alcohol or drug use, low number of sexual partners and no history of delinquency or sexual aggression. However, there is not much in the research literature specifically addressing other potential protective factors of sexual aggression.

Religiosity is one of the under-researched factors that could potentially serve as a protective factor of sexual aggression. For example, couples who share the same religious beliefs tend to have a lower incidence of sexual aggression in their relationships than couples who do not share the same religious beliefs (Kanin, 1971). However, little else is known about the relationship between religiosity and sexual aggression.

Researchers and theorists have linked high levels of religiosity with positive benefits in general. For example, people with higher levels of religiosity tend to have lower incidence of stressful life events (Ellison et al., 2001; Hettler & Cohen, 1998). Religious participation appears to reduce exposure to a number of chronic and acute stressors (Ellison et al., 2001). Religion also appears to provide individuals with a variety of
coping skills, such as prayer, collaboration with God and a large support network. These coping skills seem to mitigate the negative consequences of stressful life events on mental health (Ellison et al., 2001; Hettler & Cohen, 1998; Jang & Johnson, 2005). Researchers have also found that people with higher levels of religiosity tend to have higher levels of self-esteem (Ellison et al., 2001). Furthermore, it has been found that religion reinforces many non-delinquent behaviors (Lefkowitz, Gillen, Shearer & Boone, 2004).

These positive benefits of higher levels of religiosity on people’s mental health and behaviors lend to the possibility that religion will serve as a protective factor of sexual aggression. Additional support for religion as a protective factor for sexual aggression can be parsed from research on the relationship between religion and aggression in general and the relationship between religion and sexual behaviors and attitudes. Furthermore, a third relationship that supports the possibility of religiosity as a protective factor is how the first two relationships fit within the confluence model of sexual aggression (Malamuth, Sockloskie, Koss & Tanaka, 1991).

The first relationship that provides support for religiosity as a protective factor of sexual aggression is that of religiosity and aggression in general. One theory of the relationship between religion and aggression is that religious fundamentalism leads to increased levels of aggression, particularly of women. Feminist psychology draws upon the patriarchal beliefs of many religions to support this theory. First, feminist theorists take note that many religions are led and organized by men and that these positions of power can lead to ideas of male dominance. Second, some of the holy texts include directions for women to submit to men and portray God as giving all authority to men.
(Ephesians 5:22-24). Religious leaders have admitted that it is very easy for men to conclude that they have total dominance over their wives and that this justifies any aggression they may show their wives (Levitt & Ware, 2006). Feminist theorists conclude that it is not very hard for these beliefs to lead to men being aggressive with their wives (Brinkerhoff, Grandlin & Lupri, 1992).

However, there is little evidence available to support this theory. Instead, most of the evidence suggests that religion actually decreases the levels of aggression found in romantic relationships as well as other types of relationship. Couples who regularly attend church have lower incidence of courtship violence than couples that do not attend church (Brutz & Allen, 1986; Makepeace, 1987). Adolescents with higher levels of religiosity tend to be involved in fewer acts of youth violence (Resnick, Ireland & Borowsky, 2004). Furthermore, in a study of college athletes, lower rates of verbal and physical aggression were seen in individuals with higher levels of religiosity (Storch & Storch, 2002).

The second relationship that provides support for religiosity serving as a protective factor of sexual aggression is the relationship between religiosity and sexual behaviors and attitudes. Individuals with higher levels of religiosity tend to have less sexual experience and more conservative views of sex. Higher rates of virginity and abstinence are seen among youth engaged in religious activities and who claim that their religion is important to them (Herold & Goodwin, 1981; Lefkowitz, Gillen, Shearer & Boone, 2004; Rosotsky, Regnerus & Wright, 2003; Young, 1986). Among those who do not remain virgins, individuals with higher levels of religiosity tend to have fewer lifetime sexual partners (Davidson, Darling & Norton, 1995; Lefkowitz, Gillen, Shearer
& Boone, 2004). Even within marriage, more conservative sexual behaviors are seen among religious couples (Young et al., 1998).

Religious beliefs are often cited as the reason for such conservative sexual behaviors and attitudes (Beckwith & Marrow, 2005; Herold & Goodwin, 1981). Often religious individuals anticipate a variety of negative consequences if they were to engage in sexual activities that are taught and reinforced by their religious leaders and fellow believers (Lefkowitz, Gillen, Shearer & Boone, 2004; Rosotsky, Regnerus & Wright, 2003). Some virgins have also listed the fear of sex guilt, (i.e. the guilt and shame they would feel from engaging in sexual behaviors) as a reason for their abstinence and conservative attitudes (Young, 1986).

The third relationship that provides support for religiosity serving as a protective factor of sexual aggression is how the first two relationships fit within the confluence model of sexual aggression. The confluence model of sexual aggression, developed by Malamuth and colleagues (1991; 1995) is one of the most prominent theories that attempt to explain why certain men are more likely to be sexually aggressive than others. As previously stated, religion has a number of benefits on an individual’s mental health and behaviors (e.g. decreasing the incidence of aggressive and sexual behaviors). This influence that religion has on people is in direct opposition to the two paths identified by the confluence model that lead to sexual aggression.

The confluence model of sexual aggression posits that hostile masculinity and impersonal sex are the two paths that lead to acts of sexual aggression. The first path, hostile masculinity, describes men who are very distrustful of women. They are
defensive, hypersensitive, insecure and hostile toward women. Furthermore, they gain satisfaction from controlling and dominating women (Malamuth, et al., 1995).

As stated before, religiosity serves as a buffer against aggressive behaviors. Religious individuals are often taught violence constraining behaviors and values and non-aggressive interactions between the sexes are typically modeled for them (Makepeace, 1987). Christianity and Judaism typically do not teach that women are to be distrusted, but rather that woman was originally created to be a “suitable helper” for man (Genesis 2:20-23). Men who have higher rates of religiosity may have more exposure to and are more likely to hold to these types of beliefs and behaviors. It is then likely that these men are not going to behave in ways characteristic of the path of hostile masculinity and, therefore, they will not be sexually aggressive.

The second path that comprises the confluence model of sexual aggression is impersonal sex. Impersonal sex is a non-committal, promiscuous sex where men feel no sense of closeness to their sexual partners (Malamuth et al., 1995). Often impersonal sex results from peer groups that place a high emphasis on sexuality. That it, there is pressure from peer members to engage in sexual activities and sexual conquests are used to gain status and self-esteem in these groups. The pressure can lead to men using coercion and force to induce the women into sexual acts (Malamuth et al., 1991).

As previously stated, individuals with higher levels of religiosity tend to have more conservative sexual behaviors and attitudes. They tend to view sex as a sacred act reserved for only marriage and they do not engage in promiscuous sex. They are taught these beliefs and then they are typically surrounded by other like-minded people (Holder et al., 2000). These peer groups do not pressure each other to engage in various sexual
activities unlike the peer groups characteristic of the path of impersonal sex. Exposure to these values and beliefs make it likely that religious men will not show characteristics of the impersonal sex path and they will not be sexually aggressive.

Generally, each pathway of the confluence model by itself would not lead to sexual aggression. Alone, the path of hostile masculinity would typically lead to a man who is aggressive in other ways (e.g. physical, verbal, etc.), while the path of promiscuous sex would typically lead to a man who is merely promiscuous in his sexual behaviors but generally does not use force (Malamuth, Sockloskie, Koss & Tanaka, 1991). It is the interaction of these two paths that lead to overt sexually aggressive behaviors. Similarly, religiosity’s possible relationship to each of these paths would alone lead to a man who was either not very aggressive or not very promiscuous. It would seem likely that when religiosity interacts with aspects of both pathways that this would lead to a man that does not engage in any sexually aggressive behaviors.

The three relationships described above (i.e. religiosity and aggression; religiosity and sexual behaviors and attitudes; and the first two relationships and their fit with the confluence model of sexual aggression) support the possibility of religiosity serving as a protective factor of sexual aggression. In light of these findings, this study will be specifically analyzing the potential protective nature of religiosity against sexual aggression. This will be done through the use of self-report and laboratory assessments.

Researchers have typically relied on self-report in order to measure religiosity, however, there is still much disagreement over what the self-report assessments should consist of. Religiosity is an under-developed concept that has typically been measured by religious service attendance and participation in daily religiosity activities (Young,
Denny, Luquis & Young, 1998). Many have argued that this is a very crude and one-dimensional way of conceptualizing a very complicated and multi-faceted concept (Ellison et al., 2001; Holder et al., 2000; Young et al., 1998). Many researchers have developed assessments that try to cater to other aspects of religiosity such as intrinsic motivation and perceptions of God. Other researchers have developed very comprehensive measures that address multiple facets of religiosity. One such measure is the Multidimensional Measurement of Religiousness/Spirituality (MMRS), which is a series of measures that have been compiled by the Fetzer Institute (1999). The MMRS consists of 12 subscales that can be used as separate measures or as part of the whole MMRS. The MMRS has been found to be both psychometrically valid and reliable.

Researchers have also identified a variety of sound ways to measure sexual aggression. While self-report is a frequently used mode of measurement for sexual aggression, laboratory analogues have been identified as a valuable adjunct to self-reports. This study will be using a laboratory analogue of sexual harassment recently developed by Mitchell and colleagues that uses sexually-oriented joke-telling as a proxy for sexually harassing behaviors in the real world (Mitchell, Hirschman, Angelone & Lilly, 2004). This is accomplished by providing participants with the opportunity to tell sexually oriented jokes to a female confederate that the typical college student would or could encounter in real life. Previous research suggests that the laboratory analogue is psychometrically valid and reliable (Mitchell, Hirschman, Angelone & Lilly, 2004).

There is an abundance of indirect evidence to support the possibility of religiosity serving as a protective factor of sexual aggression. There are a number of benefits linked to high levels of religiosity, including decreased levels of aggression and sexual
behaviors. Furthermore, the values and beliefs of many religions are in direct contrast to the characteristics and behaviors of most men who participate in acts of sexual aggression. Thus, it is hypothesized that religiosity will predict sexual aggression in the laboratory such that participants with higher levels of religiosity will tell fewer sexually oriented jokes while participants with lower levels of religiosity will tell more sexually-oriented jokes.
Participants

Participants consisted of 78 male students recruited from the Introduction to Psychology classes at Rowan University. Participants’ ages ranged from 18 to 42. Given that the paradigm focuses on peer interactions as well as the fact that religiosity is often displayed differently in different age groups, two participants were omitted that were considered to be older than the typical college student. The final sample therefore contains 76 males with an age range of 18-24. The self-reported ethnicity of the participants was 78.2% Caucasian, 10.3% Hispanic, 9% African-American and 2.6% other. Half of the participants lived off campus, while the others lived in the residential halls and apartments provided for students on campus. Most of the students were in their Freshmen or Sophomore year of college with 33.3% Freshmen, 32.1% Sophomores, 21.8% Juniors and 12.8% Seniors. The majority of the participants did not report identification with any particular religion with 80.8% Not Applicable, 5.1% Christian, 3.8% Episcopalian, 2.6% Lutheran, 2.6% Catholic, 3.8% Other and 1.3% Not sure. The “Other” category comprised of participants who took on their own unique set of beliefs apart from any specific organized religion. No other non-Christian religions were identified.

Measures

Multidimensional Measure of Religiousness/Spirituality (MMRS): The MMRS is a self-report measure that consists of a variety of subscales addressing different aspects of
religiosity/spirituality. Subscales include Daily Spiritual Experiences, Meaning, Values, Beliefs, Forgiveness, Private Religious Practices, Religious/Spiritual Coping, Religious Support, Religious/Spiritual History, Commitment, Organizational Religiousness, and Religious Preference. The subscales typically consist of 4-point, 6-point or 8-point Likert scales, however, some subscales contain yes or no questions and free-response. Most subscales have a long form and a short form. This study utilized a combination of the long and short forms from nine of the scales that were considered to be most relevant to the purpose of the study. The MMRS has been found to be a reliable measure with alpha values ranging from .54 to .91 for the subscales (Fetzer Institute, 1999).

Marlowe-Crowne Social Desirability Scale (SDS): The SDS is a self-report measure that addresses a person’s tendency to present themselves in a socially desirable manner. It consists of 33 true-false questions. Higher scores indicate greater social desirability responding. An example question is “I always try to practice what I preach” (Crowne and Marlowe, 1960). The scale was added to control for participants answering the questionnaires in a way that make them appear more positive or socially desirable. Crowne and Marlowe found the scale to have high reliability with an alpha of .88 (1960).

Procedure

A cover story about the purpose of the study was used to prevent the true intentions of the experiment (i.e. studying sexually harassing behaviors) from influencing how participants behave in the laboratory analogue. Participants were greeted and one at a time were brought into an office containing a one-way mirror where they were told they were participating in study entitled “Humor and Personality: How Human Factors Influence Joke Telling” and that the study would be examining at how personality can
influence joke-telling abilities. Participants were first asked to complete some
questionnaires on a computer provided for them in the office to elicit basic demographic
information. One questionnaire exposed the participants to the jokes and attempted to
substantiate the cover story by asking the participants to rate the jokes on a variety of
characteristics related to the telling of the jokes (e.g. comedic timing, delivery, etc.).

Upon finishing the questionnaires, participants were then given the opportunity to
tell anywhere between zero and all 10 of the jokes they just rated to a female confederate
we had placed on the other side of the one-way mirror. A microphone was provided in
the office with an amplifier in the adjoining office so that the confederate could hear the
participant tell the jokes and again substantiate the cover story. Participants were
informed of this set-up and when they were ready and had chosen their jokes they stood
up in front of the microphone and told their jokes to the confederate. The experimenter
sat slightly behind the participants and kept track of which jokes the participants told.

Once the participants had finished telling the jokes, they were taken into another
room with a computer and answered the remaining questionnaires. They completed the
SDS and the MMRS. Participants were then debriefed; however, only partially. They
were told that the study was looking at how religiosity influenced the number of jokes
told. The fact that the study was using sexually oriented jokes to measure sexual
aggression was not mentioned in order to prevent any potential emotional or
psychological distress.

Throughout the study two experimenters and four confederates were used. One
experimenter was male and one was female and all of the confederates were female. A
script was used to maintain control and each experimenter was thoroughly trained on how
to conduct the study. Trial runs were done numerous times with each experimenter. The goal was to minimize differences between experimenters. The confederates were also instructed and trained in how to respond to the participants. They were instructed to keep a light smile on their face and to give a small nod after each joke. Each confederate also participated in the trial runs practicing their response to the jokes. All of this was done to ensure consistency between experimenters and confederates.
CHAPTER 3

Results

Descriptive Data

The participants had a moderate response set for the MMRS. The means of the participants' scores on the MMRS subscales were relatively representative of the actual mean of each subscale with the exception of the Private Religious Practice and Commitment subscales. The participant means for these scales were quite low in comparison to the actual means of the subscales (See Table 1).

A mean of 4.47 jokes were told by all participants across conditions. Quite of few participants told zero jokes (14.5%) and the large majority of participants told fewer than 5 jokes. While the numbers started to drop off for 5 jokes or more, the largest percentage of participants actually told all 10 jokes (18.4%) (See Table 2).

Planned Analyses

A series of correlations were conducted between each subscale of the MMRS, the SDS and the number of jokes told (See Table 3). There were no significant correlations with the number of jokes told. There were also no significant correlations with the SDS. Since the SDS did not have any strong correlations with number of jokes or the subscales of the MMRS, it was dropped from further analyses. As expected, most of the MMRS subscales were highly correlated with one another.

Given that there was one male and one female experimenter and four different confederates, it was important to determine if there were any differences in the number of jokes told based on the gender of the experimenter and based on each of the four
confederates. A two-way between subjects ANOVA showed that there was a statistically significant effect of the gender of the experimenter on the number of jokes told, $F(1, 69) = 7.050, p < .010$. Participants exposed to the male experimenter ($M = 5.636$) told significantly more jokes to the female confederate than participants exposed to the female experimenter ($M = 3.239$) (See Table 4). There was also a significant effect for the confederates on the number of jokes told, $F(3, 69) = 2.805, p < .046$. However, follow-up post hoc analyses did not identify significant differences between each confederate.

Reliability analyses were also conducted on the subscales of the MMRS. As seen in Table 2, most of the subscales have average to high reliability with Cronbach alphas ranging from .54 to .98. The values subscale was the only subscale to have very poor reliability and was dropped from further analyses.

Next, a hierarchical linear regression was conducted using the enter method. The gender of the experimenter and confederate were entered on the first step to control for any influence these factors may have the number of jokes told. The MMRS subscales with moderate to high reliability were added on the second step to identify if any of the subscales provided a model that served as a predictor variable for the number of jokes told. However, no significant model emerged to serve as a predictor variable for the number of jokes told (See table 5).

*Post Hoc Exploratory Analyses*

As previously stated, there is much debate about how to measure religiosity and how to accurately account for the multiple facets of the construct. As such, and given the lack of significance, exploratory analyses were conducted in order to determine whether difficulties in measuring the construct of religiosity influenced the null findings. In order
to determine if the MMRS indeed accounts for many factors of religiosity the data was analyzed by means of a principal component analysis, with varimax rotation, factor eigenvalues greater than 1.0, an item loading cutoff criterion of .60, and acceptable internal consistency. Principal component analysis of the 86 questions from the subscales of the MMRS revealed one component accounting for 49.3% of the variance. This component had excellent reliability (α = .99) and, therefore, it was considered to represent an overall construct of religiosity.

Following suit, a second hierarchical linear regression using the enter method with the new religiosity scale was conducted. The gender of the experimenter and confederate were entered in the first step to serve as a control. The new religiosity scale was added in the second step to identify if it served as a predictor variable for the number of jokes told. However, no significant model was found that served as a predictor variable for the number of jokes told (See Table 6).
CHAPTER 4
Discussion

The present study tested whether religiosity can predict engagement in sexual aggression. This was accomplished by assessing the number of sexually oriented jokes told by individuals with high religiosity and the number of jokes told by individuals with low religiosity. Religiosity had little effect on the number of jokes told. Those with high religiosity told just as many jokes as those with low religiosity. This is inconsistent with the literature on the relationship between religiosity and aggression and religiosity and sexual aggression.

There are a number of possible reasons for the null results that need to be taken into consideration. One possible reason for the above findings may be the small sample size. There were nine subscales used from the MMRS. To be in line with statistical assumptions, there would need to be a minimum of 20 participants per subscale, however, there were only about 8 participants per subscale. This low number of participants may have decreased the power of the study. Future research may want to increase the number of participants in order to more accurately assess the predictive nature of religiosity.

A second possible reason for the null results is the difficulties found in religiosity research. As previously mentioned, there has been much debate on how to accurately measure the concept of religiosity. Many measures are one-dimensional, and while many measures, such as the MMRS, attempt to cover the multifaceted concept of religiosity, it is possible that the measure does not do an adequate job at measuring religiosity. Further faults in the religiosity measures appear to come from the Judeo-Christian biases that are
present in most religiosity measures. While the expectation is that most participants from American college campuses are from Judeo-Christian backgrounds, the religiosity measures possibly fail to accurately represent the religiosity and spirituality of other religions, faith systems and philosophies.

This difficulty is seen in some of the questions in the MMRS where it may be difficult to interpret the question or answer the questions if the participant’s beliefs about God are unknown. For example, one question asks “I feel that stressful situations are God’s way of punishing me for my sins or lack of spirituality” and the answers range from “A great deal” to “Not at all.” If a person answers “Not at all” it is unknown if they answered this way because they do not believe in God and, therefore, would not believe that God is punishing them or if the person answered “Not at all” because they do not believe God punishes people for their sins in such a way.

Further difficulties in the MMRS are found if the lack of normative data available on the scale. The response set for all of the participants suggest that our sample scored in the moderate range on the MMRS based on the mathematical means of the scales. However, it is unknown whether these moderate scores actually represent moderate religiosity in the population. Perhaps, if normative data were available for the MMRS, we would have been able to have a more accurate idea of the religiosity of sample participants and this would have either provided further explanations of the results or have provided a better starting point for future research.

Building off the inadequacies of religiosity measures is a third possible reason for the null results. Not only are the religiosity measures biased by Judeo-Christian beliefs, but the research on religiosity also appears to be biased by Judeo-Christian beliefs. Most
of the research on religion’s relationship with aggression and sexual behaviors use the biased religiosity measures and primarily consist of Judeo-Christian samples. It is possible that much of the research supporting religiosity decreasing aggression and sexual behaviors is a moot point when it comes to religions, faiths and philosophies outside of Christianity. This would make this study and others of similar nature only applicable to those who identify current or past involvement or exposure to Judeo-Christian beliefs.

A fourth possible reason for the null results is the belief that college students lose their faith. Researchers have found that young adults tend to change their beliefs and values. One study showed that the greatest amount of change in religious beliefs and greatest decrease in religious involvement happened in young adulthood (Hamberg, 1991). This transition may be further impacted by postmodernism as many college students begin to learn and believe that there is not one true religion or belief system. Perhaps if the sample from this study was compared to the sample from a religious institution that consisted of more participants with high religiosity scores, more of a difference would have emerged.

A fifth possible reason for the null results is the possibility that Christian or religious students use sexually oriented joke telling as an outlet for any sexual frustration they may be experiencing. One may observe that in circles of Christian college students, particularly those who are sexually inactive, that there is a comfort level among friends that enables them to make sexually oriented jokes without fear of repercussion. This behavior may serve as a release for any sexual desires they may be experiencing, but do not wish to act on. If this were true, this would possibly explain the null results.
A sixth possible reason for the null results is that religiosity may just not have any significant effect on sexual aggression, or at least just not on the milder forms of sexual aggression like sexual harassment and sexually oriented joke telling. It is possible that the concept trying to be pinpointed here has more to do with specific values and morals that are taught and learned. Further research may want to account for many of the possible drawbacks to this study and the research.

Previous research has identified a variety of benefits of having higher rates of religiosity. It has also identified ways in which religiosity may help decrease a variety of aggressive behaviors, at least within the realms of those individuals identifying with the Judeo-Christian faiths. Many of these finding suggest a possible predictive relationship between religiosity and sexual aggressive and that possibility may still exist. At this point, it seems most beneficial for future research to focus on tightening up the concept of religiosity to better assess any possible relationship religiosity has with sexual aggression.
References


Table 1

Descriptive Data for the MMRS Subscales

<table>
<thead>
<tr>
<th>MMRS Subscales</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief</td>
<td>7</td>
<td>31</td>
<td>22.29</td>
<td>6.19</td>
</tr>
<tr>
<td>Commitment</td>
<td>3</td>
<td>13</td>
<td>4.89</td>
<td>1.02</td>
</tr>
<tr>
<td>Daily Spiritual Practice</td>
<td>22</td>
<td>89</td>
<td>46.53</td>
<td>15.28</td>
</tr>
<tr>
<td>Meaning</td>
<td>20</td>
<td>100</td>
<td>53.28</td>
<td>10.10</td>
</tr>
<tr>
<td>Organizational Religiousness</td>
<td>28</td>
<td>129</td>
<td>68.32</td>
<td>26.97</td>
</tr>
<tr>
<td>Private Religious Practice</td>
<td>4</td>
<td>20</td>
<td>8.86</td>
<td>4.27</td>
</tr>
<tr>
<td>Religious/Spiritual Coping</td>
<td>11</td>
<td>28</td>
<td>17.54</td>
<td>3.50</td>
</tr>
<tr>
<td>Values</td>
<td>3</td>
<td>15</td>
<td>8.00</td>
<td>2.30</td>
</tr>
</tbody>
</table>
APPENDIX B

Table 2

**Joke Frequencies**

<table>
<thead>
<tr>
<th>Number of Jokes</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>11</td>
<td>14.5</td>
<td>14.5</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>11.8</td>
<td>26.3</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3.9</td>
<td>30.2</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>15.8</td>
<td>46.0</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>15.8</td>
<td>61.8</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7.9</td>
<td>69.7</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1.3</td>
<td>71.0</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>2.6</td>
<td>73.6</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>3.9</td>
<td>77.5</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>3.9</td>
<td>81.4</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
<td>18.4</td>
<td>99.8</td>
</tr>
</tbody>
</table>

Note: Does not add up to 100% due to rounding error
APPENDIX C

Table 3

Correlation Table for Number of Jokes, SDS and MMRS

<table>
<thead>
<tr>
<th>MMRS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Jokes</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SDS</td>
<td>-.09</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Beliefs</td>
<td>-.03</td>
<td>.03</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Commitment</td>
<td>.16</td>
<td>.02</td>
<td>.53**</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Daily Spiritual Practice</td>
<td>.03</td>
<td>.19</td>
<td>.78**</td>
<td>.69**</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Meaning</td>
<td>.00</td>
<td>.09</td>
<td>.86**</td>
<td>.66**</td>
<td>.86**</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Organizational Religiousness</td>
<td>.15</td>
<td>.09</td>
<td>.73**</td>
<td>.59**</td>
<td>.78**</td>
<td>.78**</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Private Religious Practice</td>
<td>.14</td>
<td>.07</td>
<td>.62**</td>
<td>.65**</td>
<td>.76**</td>
<td>.68**</td>
<td>.67**</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Religious/Spiritual Coping</td>
<td>-.09</td>
<td>.18</td>
<td>.63**</td>
<td>.50**</td>
<td>.70**</td>
<td>.72**</td>
<td>.64**</td>
<td>.45**</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Values</td>
<td>.17</td>
<td>.26*</td>
<td>.18</td>
<td>.14</td>
<td>.25*</td>
<td>.22</td>
<td>.34**</td>
<td>.20</td>
<td>.31**</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)
APPENDIX D

Table 4

 Means (Standard Deviations) for Experimenters and Confederates

<table>
<thead>
<tr>
<th>Confederate</th>
<th>Experimenter</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>M (sd) n</td>
<td>M (sd) n</td>
</tr>
<tr>
<td>1</td>
<td>4.90 (3.85)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2</td>
<td>7.00 (3.00)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>5.00 (3.18)</td>
<td>2.40 (2.77)</td>
</tr>
<tr>
<td>4</td>
<td>0 (0)</td>
<td>5.55 (3.09)</td>
</tr>
<tr>
<td>Totals</td>
<td>5.09 (3.50)</td>
<td>43</td>
</tr>
</tbody>
</table>

28
APPENDIX E

Table 5

Summary of Linear Regression Analysis for Variables Predicting Number of Jokes Told
(N = 76)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender of Experimenter</td>
<td>-1.828</td>
<td>.916</td>
<td>-.261*</td>
</tr>
<tr>
<td>Confederate</td>
<td>.389</td>
<td>.434</td>
<td>.117</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beliefs</td>
<td>-.078</td>
<td>.130</td>
<td>-.137</td>
</tr>
<tr>
<td>Commitment</td>
<td>.410</td>
<td>.290</td>
<td>.237</td>
</tr>
<tr>
<td>Daily Spiritual Experiences</td>
<td>-.027</td>
<td>.063</td>
<td>-.119</td>
</tr>
<tr>
<td>Meaning</td>
<td>-.018</td>
<td>.052</td>
<td>-.105</td>
</tr>
<tr>
<td>Organizational Religiousness</td>
<td>.049</td>
<td>.027</td>
<td>.378</td>
</tr>
<tr>
<td>Private Religious Practice</td>
<td>.040</td>
<td>.163</td>
<td>.049</td>
</tr>
<tr>
<td>Religious/Spiritual Coping</td>
<td>-.215</td>
<td>.173</td>
<td>-.215</td>
</tr>
</tbody>
</table>

*Significant at 0.50 level

Note. Adjusted \( R^2 = .026 \) for Step 1; Adjusted \( R^2 = .059 \) for Step 2
APPENDIX F

Table 6

Summary of Linear Regression Analysis for Variables Predicting Number of Jokes Told Using the New Single Religiosity Scale (N = 76)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender of Experimenter</td>
<td>-1.828</td>
<td>.916</td>
<td>-.261*</td>
</tr>
<tr>
<td>Confederate</td>
<td>.389</td>
<td>.434</td>
<td>.117</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Religiosity Measure</td>
<td>.256</td>
<td>.407</td>
<td>.073</td>
</tr>
</tbody>
</table>

*Significant at 0.50 level

Note. Adjusted $R^2 = .026$ for Step 1; Adjusted $R^2 = .059$ for Step 2.