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THE RELATIONSHIP BETWEEN INTRINSIC/EXTRINSIC
RELIGIOSITY AND MEANING IN LIFE

by
Diane Woyciechowski

A Thesis

Submitted in partial fulfillment of the requirements of the
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of
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at
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Approved by

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ABSTRACT

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THE RELATIONSHIP BETWEEN INTRINSIC/EXTRINSIC
RELIGIOSITY AND MEANING IN LIFE
2006/07
Dr. Roberta Dihoff
Master of Arts in School Psychology

The purpose of the following study was to determine whether there is a significant relationship between intrinsic and extrinsic religiosity and the presence of and search for meaning in one's life. Since religion has previously been found to play a role in one's physical and mental health, the present study offers additional evidence to religion's role in the mental health field. Three measures were used to collect the data for this study, including a demographic form, the Meaning in Life Questionnaire (MLQ) and the Intrinsic/ Extrinsic Religiosity Revised Scale (I/E-R). Sixty-eight students were recruited for this study, 31 males and 37 females, from a suburban, public, college and had a mean age of 19.6. The majority of participants were Caucasian (75%) and Catholic (57.4%). A correlational design was used to determine whether religiosity was significantly related to meaning in life. The present study concluded that intrinsic religiosity, regardless of gender, is positively correlated with the presence of meaning in one's life.

TABLE OF CONTENTS

List of Figures	v
CHAPTER	PAGE
I. Introduction	1
Need	1
Purpose	3
Hypothesis	3
Theory/Background	4
Definition of Terms	5
Assumptions	5
Limitations	6
Summary	6
II. Review of the Literature	8
Introduction	8
Defining Religiosity	8
<i>Significant Linkages to Religiosity</i>	10
Religiosity and Depression	12
Religiosity and Overall Life Satisfaction	13
Mediators Between Religiosity and Life Satisfaction	14
Religiosity and Purpose in Life	16
Age and Gender Influences	18

	Need for More Research	20
	Summary	21
III.	Design	23
	Participants	23
	Measures	23
	Reliability/Validity of Scales	24
	Independent/Dependent Variables	25
	Analysis of Data	25
	Summary	26
IV.	Results	27
	Introduction	27
	Hypothesis 1	27
	Hypothesis 2	28
	Hypothesis 3	29
	Other Significant Findings	29
	Summary	31
V.	Discussion	33
	Introduction	33
	Hypothesis 1	33
	Hypothesis 2	35
	Hypothesis 3	35
	Limitations	36
	Conclusion	37

Suggestions for Future Research	37
List of References	39

LIST OF FIGURES

FIGURE	PAGE
Figure 4.1 The relationship between intrinsic religiosity and presence of meaning	29
Figure 4.2 The relationship between intrinsic and extrinsic religiosity	30
Figure 4.3 The relationship between presence of and search for meaning	31

CHAPTER I: INTRODUCTION

Need

The period of adolescence allows time for one to experiment, make mistakes, and learn more about his or herself. It is a time for exploration and, hopefully, a time for defining one's self. Throughout this time, there are many questions, doubts and fears. One aspect for exploration is one's attitude or belief about religion and spirituality (Whittaker, 1932). Assuming that we explore this area in adolescence, then it is important to understand the kind of impact religion or spirituality can have on us as adults. It has been suggested that age is a very important variable when studying the association between religion and well-being because religious meaning increases with age (Ellison, 1991). Therefore, research involving the association between religion and mental health is needed among the adult population.

An individual's well-being can be studied in a variety of ways. According to Steger and Frazier (2005), an individual's sense of meaning in life is a primary mediator between the relationship between religiosity and one's overall life satisfaction or well-being. Therefore, there needs to be more direct research concerning the relationship between religiosity and one's purpose in life.

While religion is a popular subject of study, there is still some conflicting research concerning multiple variables included within the relationship between religiosity and purpose in life. Gender's influence on the association between religiosity and well-being is one variable in question. A cross-cultural study exploring the association between

religiosity and life satisfaction found that men showed a significant association while females did not (Dorahy et al., 1998). Oppositely, Levitt (1995) supported the significance of this same relationship among women, not men, since they were found to have higher positive attitudes towards religion and attend church more often than men. Interestingly, another study found that gender did not have any effect at all on the relationship between religiosity and life satisfaction (Hintikka et al., 2001). Further support is given to the notion that certain variables are not influential when Francis (2000) argues that religion conveys a strong relationship with purpose in life regardless of age, sex, or personality factors. However, because of these inconsistencies found among previous research, factors such as age or gender must always be considered when generalizing any conclusions regarding religiosity's impact on the human mind and body.

A considerable amount of research suggests that only intrinsic rather than extrinsic religiosity is significantly related with meaning in life (Auhagen, 2000). Ardel (2003) would also agree that when studying the relationship between religiosity and well-being, studying the difference between intrinsic and extrinsic religiosity is essential. Therefore, since meaning in life is a potential mediator for the relationship between religiosity and well-being, the difference between intrinsic and extrinsic religiosity should also be measured. Further, since previous studies have often used the frequency of religious attendance as a measure to determine intrinsic religiosity (Haerich, 1992; Beckwith & Morrow, 2005), it would be interesting to understand the validity of this measure.

Overall, there is a need for more research in order to gain confidence in the findings of previous research concerning the relationship between religiosity and purpose

in life, since purpose in life has been suggested to influence one's overall life satisfaction. More specifically, in order to fully understand religion's connection to overall life satisfaction, additional research is needed to focus on adult populations, intrinsic and extrinsic factors, and one's purpose in life. The present study intended to promote external generalizability by examining the areas of which previous researchers have suggested for further studying.

Purpose

The purpose of this study was to contribute more knowledge to the understanding of the relationship between religiosity and one's purpose in life. More specifically, the purpose was to discover if one's intrinsic or extrinsic religiosity would impact their sense of purpose in life. Overall, this study focused on determining the relationship between one's meaning in life and religiosity by focusing on intrinsic and extrinsic religiosity factors among a sample of students attending a suburban, public, college. College-aged students were chosen since the relationship between religiosity and well-being increases with age (Ellison, 1991). Also, most people would believe that individuals are making their own decisions regarding religious beliefs at this stage in their life.

Hypothesis

Three hypotheses were developed regarding the relationship religiosity and one's meaning in life. First, it was hypothesized that intrinsic religiosity would have a significant, positive relationship with the presence of meaning in one's life, while extrinsic religiosity would show a positive, significant relationship with the search for meaning in one's life. Second, it was hypothesized that, consistent with previous research, one's frequency of attending religious services would have a positive,

significant relationship with intrinsic religiosity. Lastly, gender's influence on the relationship between religiosity and meaning in life would be analyzed, but was not expected to be a significant factor.

Theory/Background

Religion and spirituality are research topics that have been widely studied since the 1970s by many different counselors, including mental health counselors, pastoral counselors and psychological counselors (Richmond, 2004). Ever since religion and spirituality were explored, an array of questions and convictions regarding its purpose and contributions has arisen. More specifically, many researchers have examined religion's impact on individuals' physical and mental health.

Some research has found a connection between religion and a protection against cardiovascular disease, as well as the general protection of healthy people from death (Powell, Shahabi, & Thoresen, 2003). However, other researchers feel that despite the abundance of research available on this topic, a great deal more of research is needed to establish any clear conclusions. Religion or spirituality has been consistently identified as providing coping skills to help those with disabilities or illness, but the exact role that it plays in health, adjustment, and recovery is still inconclusive (Kilpatrick, & McCullough, 1999). More recently, coping skills rooted within the religious or spiritual realms have been encouraged as a possible factor in increasing one's quality of life (E.N. Matheis, Tulskey, & R.J. Matheis, 2006).

Steger and Frazier (2005) also studied religion's relationship with overall life satisfaction. Steger and Frazier found that religious individuals experience greater life satisfaction because of religion's strong association with providing an individual with a

purpose in life. In this 2005 article, it has been suggested that those interested in religion and well-being should pay specific attention to the examination of one's meaning in life (Steger & Frazier).

Definition of Terms

1. Religiosity- A term used to encompass the different aspects of religious behavior, such as knowing, feeling, and doing (Cornwall, Albrecht, Cunningham, & Pitcher, 1986). It could also be referred to as *religiousness*.
2. Intrinsic Religiosity- The use of religion regardless of social or any other external pressures (Bergin, 1991). It could also be referred to as internally oriented religiousness.
3. Extrinsic Religiosity- The use of religion to gain social acceptance or reward (Bergin, 1991). It could also be referred to as externally oriented religiousness.
4. Life satisfaction- An individual's overall impression of his or her life. Life satisfaction has been measured by studying various aspects of life, which has sometimes included but is not limited to one's level of interest, physical and mental health, social and romantic relationships, perceived strengths and weaknesses, self-esteem, happiness, or optimism.
5. Meaning in life- A specific component that has been associated with mediating the relationship between religiosity and overall life satisfaction (Steger & Frazier, 2005). The terms "meaning in life" and "purpose in life" are used interchangeably throughout this study.

Assumptions

Throughout this experiment there were several assumptions made in order to test

the hypothesis. In this experiment, it was assumed that the participants answered the surveys accurately and honestly to the best of their abilities. Furthermore, it was assumed that the surveys given to the participants adequately assessed the participants' level of meaning in life and intrinsic/extrinsic religiosity.

Limitations

Several limitations were evident in this study because of many different factors. First, this study was limited to college students at the undergraduate level at a suburban, public, college. Second, the sample size and level of diversity was limited to that which is represented by the college campus. Lastly, there was a time constraint, which could have contributed to the available population, the sample size, and the duration of the experiment.

Summary

Chapter II will go into further detail regarding the most recent and notable research related to religion's influence on overall life satisfaction in general and, more specifically, its relationship with purpose in life. Furthermore, Chapter II will also discuss different populations and conflicting findings regarding various aspects among the connection between religiosity and purpose in life. Throughout Chapter II, different areas related to the present study will be explored, such as different definitions of religiosity, religion's impact on various aspects of life, potential mediators of the relationship between religiosity and meaning in life, as well as, variables that may impact this relationship. Chapter III will explain the measures and the design of the present study. Lastly, Chapter IV will go into detail about the present study's statistical findings, and Chapter V will discuss the possible conclusions that can be made from the current

study's findings.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

The following research supports the need and develops the background behind the present study. The research is discussed from the most general research associated with the present study to the more specific research regarding the topic of religiosity and meaning in life. The general research defines religiosity and discusses its relationship to physical and psychological benefits. The more specific research studies religiosity's relationship with factors such as life satisfaction, overall well-being, and purpose in life.

Defining Religiosity

Religiosity has been defined in a variety of ways since professionals from many different domains have developed an interest in its study. In its simplest form, religiosity can be considered synonymous with the term *religiousness* or, in other words, the state of being religious. It is most commonly used to describe the variation between individuals' commitment to religion through a variety of pathways (Ebaugh, Chafetz, & Pipes, 2006).

Several of these pathways for one's religious commitment were explored by Cornwall (1989). Cornwall (1989) developed five categories by which to define religiosity. These five categories included group involvement, belief-orthodoxy, religious commitment, religious socialization, and sociodemographic characteristics. Cornwall, Albrecht, Cunningham, and Pitcher (1986) developed the five categories with the belief that the five categories were all components of three main aspects to religiosity, which were knowing, feeling, and doing.

Religiosity has also been researched regarding its variation on an organizational scale rather than just an individual scale. Organization religiosity can be determined by service religiosity, which involves the attitude of the staff towards the clients of that organization, and staff religiosity, which includes how one becomes a part of staff and how the staff relates to one another (Ebaugh, Chafetz, & Pipes, 2006).

Religiosity has also been found to be very similar to the term spirituality. Wink and Dillon (2003) used the terms religiousness and spirituality to determine sources of well-being and concluded that religiousness, or religiosity, is separate from spirituality; however, there is an overlap among the terms. Beckwith & Morrow (2005) have also found a significant positive relationship between the terms religiosity and spirituality. Religiosity was defined by using objective measures, such as church attendance, and subjective measures, such as self-reports. Spirituality, on the other hand, focused on one's personal, subjective channel to explore the belief that there is something greater than oneself without the structure of organized religion. Religiosity and spirituality both included an element of involvement in or commitment to a higher power.

Religiosity has also been defined in terms of intrinsic and extrinsic factors. Ardel (2003) used Allport's and Ross' (1967) Intrinsic and Extrinsic Religious Orientation Scale to determine if intrinsic factors influenced one's well-being differently than extrinsic factors. Ardel (2003) concluded that there are significant differences in one's well-being when comparing one's intrinsic orientation versus extrinsic factors. Gorsuch and McPherson (1989) confirmed Kirkpatrick's (1988) suspicion that the extrinsic factors measured in Allport's and Ross's (1967) measure should be divided into personally oriented extrinsic factors and socially oriented extrinsic factors. One example of a social

extrinsic factor would be going to church to make friends, while a personal extrinsic factor, for example, could be praying for relief and protection. One example of an intrinsic factor, according to Gorsuch and McPherson (1989), could be enjoying reading about one's religion.

Worthington et al. (2003) measured one's level of religious commitment to determine religiosity and study its effects on mental and physical health. Hill and Pargament (2003) were also interested in religion and spirituality's effect on health. Instead of using the traditional methods of defining religiosity, such as church attendance and self-reports, other measures were explored. The other measures were focused on closely relating religion to the concept of physical and mental health and included measures such as closeness to God, religious orientation and motivation, religious support, and religious struggle.

Significant Linkages to Religiosity

Religiosity has been widely studied since the 1970s by many different counselors, including mental health counselors, pastoral counselors and psychological counselors (Richmond, 2004). Consequently, religiosity has been linked to many different areas within physical and mental health domains.

There are many studies that have found a relationship between religiosity and mental health. For example, Powell, Shahabi, & Thoresen (2003) found a connection between one's religiosity and protection against cardiovascular disease. Furthermore, religiosity is associated with the general protection of healthy people from death. Another study found a connection between Judeo-Christian religious practices and several physiological processes, which included cardiovascular, neuroendocrine, and

immune functioning (T. Seeman, Dubin, & M. Seeman, 2003). However, admittedly, T. Seeman, Dubin, and M. Seeman (2003), believe that much more evidence is needed in this area for the conclusions to be valid. For example, according to medical research, a longitudinal study concluded that religion does not promote better recovery or adjustment within the medical field regardless of the surge of studies related to this topic that concluded otherwise (Fitchett, Rybarczyk, DeMarco, & Nicholas, 1999). Therefore, even though research regarding religiosity is now “full blown” (Richmond, 2004, p. 52), there is still some controversy and more research is needed to make definite conclusions.

Aside from religiosity’s connection with physical health, much research has been devoted to religiosity’s connection among several other realms. For example, one study looked into two factors, religiosity and social support, to determine whether there was a relationship with alcohol abuse (Dulin, Hill, & Ellingson, 2006). Most of the students studied were active members in the Church of Jesus Christ of Latter-Day Saints (LDS), which prohibits the use of alcohol and other drugs. LDS was found to have a highly negative association with alcohol abuse. Also, religiosity was found to decrease the likelihood of alcohol abuse independent of one’s social support (Dulin, Hill, & Ellingson, 2006).

Religiosity’s relationship with one’s self-esteem has also been studied. In one particular study, a positive correlation was found between high self-esteem and a positive attitude towards Christianity (Jones & Francis, 1996). In a similar study, Williams, Francis, and Robbins (2006) researched a sample of 279 students in Wales aged 13 to 16 years old. It was concluded that there is a small but significant negative correlation between self-esteem and the rejection of Christianity.

Another study concluded that the level of importance an individual attributed to religion, termed religious salience, yielded a significant positive relationship to the individual's satisfaction with his or her health care (Benjamins, 2006). The study controlled for demographic, social, and health variables when analyzing the relationship. Benjamins (2006) suggests that religious individuals may be more satisfied in all areas of life and, consequently, also yield higher patient satisfaction. Religiosity's relationship with life satisfaction will be discussed in greater detail later on in this paper.

Unfortunately, high levels of religiosity have not always been associated with optimistic relationships. In 2005, Dyslin and Thomsen conducted a study to test the widely known belief that Conservative Protestants are more likely to abuse their children than are parents of other religions. They also studied a variety of aspects involved in religiosity including interest, participation, orthodoxy, and intrinsic and extrinsic orientation. While no evidence was found to support these beliefs in a study that had 90% power, it did find that extrinsic religiosity predicted an increased risk of perpetrating child physical abuse (Dysline & Thomsen, 2005).

Religiosity and Depression

Religion has often been identified as a useful coping skill, which could also contribute to one's mental health. A study done among college students of both Catholic and Protestant religions found a significant interaction between one's religious coping and life stress management (Park, Cohen, & Herb, 1990). More specifically, for Catholics, religious coping protected students from depression related to controllable negative events. Also, for Protestants, uncontrollable life stress and intrinsic religiosity was found to be a significant predictor of depression. In 2000, another study also

recognized the impact religious beliefs and practices can have on depression (Murphy, Ciarrocchi, Piedmont, Cheston, Peyrot, & Fitchett). Murphy et al. (2000) related religious belief to lower levels of hopelessness, and hypothesized that this could be a possible mediator of the relationship between religiosity and depression. However, it has also been concluded that depression could be associated with a conflict of values and, consequently, both believers and non-believers alike show lower levels of depression, while those who are uncertain continue to show a correlation with depression (Eliassen, Taylor, & Lloyd, 2005) Therefore, much more research is still needed to completely understand how religiosity can affect depression and other areas of mental health (Murphy et al., 2000).

Religiosity and Overall Life Satisfaction

When finding a relationship between religiosity and life satisfaction, religiosity must always be explicitly defined because religiosity is such a broad term. Cohen (2002) found that spirituality, religious coping, and religious belief were the best aspects of religiosity to predict life satisfaction. However, these predictors were found to be more effective for Catholics and Protestants than for Jews (Cohen, 2002). Hintikka et al. (2001) defined religiosity as religious attendance and studied its relationship with life satisfaction in Finland. Religious activity, determined by religious attendance (never, less than once a month, 1-3 times a month, or once a week or more), is associated with life satisfaction and overall mental health. Chamberlain and Zika (1988) found that religious activity is a better measure than religiosity, when religiosity is defined as importance of religion, interest in religion, or religion-mindedness. Hintikka et al. (2001) also encourage further research on different aspects of religiosity within the relationship

between religiosity and life satisfaction.

While the relationship between religiosity and life satisfaction has been researched for quite some time, the first study to examine a sample of elderly African Americans was not until 2005 (Frazier, Mintz, & Mobley). Religiosity was defined as organizational involvement, non-organization involvement and subjective involvement. Organizational and subjective involvement showed a significant positive relationship with positive relations with others, self-acceptance, environmental mastery, purpose in life, and personal growth.

Regarding college students, Richards (1991) discusses the therapist's role in helping clients explore ways to develop religious coping skills in order to help them with emotional adjustment and transitioning from home as an important way of improving overall well-being. Therefore, within the abundance of research among different age groups, ethnicities, and religions, religiosity appears to play a role in one's overall well-being or life satisfaction. However, the relationship between religiosity and life satisfaction needs to be studied further to determine possible mediators of this relationship (Cohen, 2002).

Mediators Between Religiosity and Life Satisfaction

There are many possible reasons for the connection between religiosity and life satisfaction. As mentioned earlier, religious coping skills could play a substantial role in overall mental health. Other studies have also tried to find potential mediators of the relationship between religiosity and overall life satisfaction. Marital satisfaction was linked to religiosity in a 2001 study (Fiese & Tomcho). While the results found some differences among men and women, overall it was concluded that religious holiday

rituals connect couples' values and beliefs and helps to affirm marital relationships. Fiese and Tomcho (2001) offer one possible mediator between the connection of religiosity and life satisfaction since marital satisfaction has often been identified as a necessary component of overall life satisfaction (Whisman, Uebelacker, Tolejko, Chatav, & McKelvie, 2006).

One of the purposes for Steger's & Frazier's 2005 study was to provide empirical evidence for the speculation that meaning in life is a mediator between religion and well-being. Steger and Frazier (2005) defined religiosity by using behavioral, subjective, and expressive aspects of religiosity, which included the frequency of one's prayer and attendance at religious services and the level of self-reported religiosity and spirituality. Five hundred and twelve participants from a large midwestern university were recruited from introductory psychology classes and 508 students completed this experiment. The average age of the sample was 20.2 years old with slightly more females and mostly Caucasians of either Catholic or Protestant religions. Each participant received three measures: the Meaning in Life Questionnaire (MLQ), a measure of religiosity that had an internal consistency reliability of .79, and the Satisfaction With Life Scale (SWLS).

Steger and Frazier (2005) concluded that meaning in life is a mediator for the relationship between religiosity and life satisfaction. Therefore, it is suggested that individuals with high levels of religiosity may, in turn, have a higher sense of meaning in life because of their behaviors and feelings towards religion. Steger and Frazier (2005) argue that this is an area that deserves further research because it is crucial in helping individuals with overall mental health and well-being. Therefore, the present study hopes to contribute more research on religiosity's connection with meaning or purpose in life.

Religiosity and Purpose in Life

The sense of having meaning or purpose in one's life has been found to be one indicator of well-being and, consequently, it is viewed as a positive quality in a human being (Ryff, 1989). Religiosity has been positively connected to meaning in life among many different studies including different ages, religions, and ethnicities. Similarities can even be found within the definitions of meaning in life and religiosity. Religiosity can be defined as knowing, feeling, and doing (Cornwall, Albrecht, Cunningham, & Pitcher, 1986). Similarly, meaning in life has been defined as understanding, belonging, and doing (King, 2004). Consequently, adhering to the terms of religiosity most likely leads individuals towards a path of meaning and purpose within their lives.

Among the elderly population, a 1998 study concluded that those scoring high on meaningfulness of spirituality and spiritual satisfaction also score high on purpose in life scores (Gerwood, LeBlanc, & Piazza). It was also concluded that one's religion, either Protestant or Catholic, did not have any significant effect on the outcome of the purpose in life scores.

Older adults, with a mean age of 29 years old, have also produced similar findings. Chamberlain and Zika (1988) concluded among this sample of women that religiosity is significantly correlated with life satisfaction and, furthermore, meaningfulness could very well be a mediator of that relationship.

Adolescents have also been studied in connecting religion with purpose in life. Francis (2000) studied adolescents aged 13 to 15 years old. Religiosity was defined by bible reading and found that, within a sample of 25,888 adolescents in England and Wales, bible reading does contribute to a higher sense of purpose in life among this age

group as well (Francis, 2000).

As mentioned earlier, a significant positive relationship between religiosity and purpose in life was found for the first time among African Americans in 2005 (Frazier, Mintz, & Mobley). Another study explored how women from different cultures deal with confusion or unanswered questions and found that African Americans, Latinas, and women of lower socioeconomic status responded similarly by turning to the bible, prayer, or church (Moreman, 2005). Therefore, there may be some cultural differences found within the relationship between religiosity and purpose in life.

Francis and Burton (1994) examined a sample of 674 Catholic adolescents to determine if personal prayer activity alone can influence one's purpose in life. It was concluded that how often one prays has a significant positive relationship with one's sense of purpose in life. Later, Francis and Evans (1996) conducted a similar experiment with two groups, one group of Catholic adolescents who regularly went to church and another group of adolescents who did not attend church. Interestingly, regardless of one's church attendance, frequency of prayer still revealed a significant positive relationship with purpose in life (Francis & Evans, 1996).

A recent study showed a strong connection between positive affect to meaning in life (King, Hicks, Krull & Gaiso, 2006). Interestingly, religiosity has been connected with different aspects of positive affect, which could be one reason for the connection between religiosity and meaning in life. One study identified religion as one possible coping mechanism, which helped to promote optimism and successfully lowered distress (Carver, Pozo, Harris, Noriega, Sceier, Robinson, et al., 1993). More recently, spirituality was found to have a positive, linear relationship with positive emotions, such

as joviality, self-assurance, attentiveness, and serenity (Kim, Seidlitz, Ro, Evinger, & Duberstein, 2004). Furthermore, religion has been linked with promoting optimism, protecting against stress, as well as encouraging healthy lifestyles, which can all be related to a higher sense of meaning in life (Wong, 1998).

In spite of current findings that religiosity is positively related with meaning in life, there is still a considerable amount of contradictory studies that seems to suggest that only intrinsic rather than extrinsic religiosity is significantly related with meaning in life (Auhagen, 2000). However, even the suggestion of intrinsic and extrinsic differences has its share of controversy. One example includes a 1991 study, which concluded that there is no difference between intrinsic and extrinsic or religiously devout and nontraditionally religious college students with respect to life purpose, direction, and satisfaction (Richards).

Overall, there appears to be a consensus that religion plays a role in meaning of life; however, it is complex and needs to be studied further (Auhagen, 2000). In 2003, additional research was conducted on the association between religiosity and meaning in life among college students (Perryman). While trends were found between the relationship of prayer activity and meaning in life, Perryman (2003) suggests that more research is needed to make any firm conclusions regarding religiosity's relationship with meaning in life. Therefore, the present study will concentrate on the relationship between intrinsic and extrinsic religiosity and its relationship with meaning in life.

Age and Gender Influences

There are many potential variables that need to be researched in influencing the relationship between religiosity and well-being. Two of the main variables researched

are age and gender. In 1998, one study examined the relationship between religiosity and life satisfaction cross-culturally (Dorahy, Lewis, Schumaker, Akuamoah-Boateng, Duze, & Sibiya). Interestingly, their research concluded that religiosity had a significant association with life satisfaction, as most other studies have also concluded; however, these findings were only significant for the men and not for the women in the study of 186 participants (98 males and 88 females). Levitt (1995) has also studied gender's influence on religiosity and found that girls tend to have more positive attitudes towards religion than boys do in a sample of 38 children from 10 to 17 years old. Similarly, mothers were found to be more likely to attend church than fathers.

Aside from biological gender, psychological gender has also been considered as a potential influence on one's attitude toward Christianity (Francis, 2005). It was concluded, in a sample of 486 elderly men and women, that psychological femininity was influential in differences in religiosity and, furthermore, biological sex did not play a role once the psychological sex was taken into account. Similarly, a 2001 study concluded that the masculine gender role was significantly related to lower levels of intrinsic religiosity and well-being (Mahalik & Lagan).

Ellison (1991) stresses the importance of considering age as a variable in the relationship between religiosity and life satisfaction since he concluded that religiosity increases with age. Wink and Dillon agreed with Ellison's findings in a 2002 longitudinal study with both men and women. Interestingly, while both genders increased in terms of spirituality across the lifespan, females increased at a quicker pace when compared to the males (Wink & Dillon, 2002). Further, the most significant increase in spirituality found by Wink and Dillon (2002) occurred between late-middle

and older adulthood. In regards to one's attitude toward religion, a 2002 study found that adolescents typically have a more positive attitude when compared with young adults (Dorman).

Even with all of the research suggesting differences within the relationship between religiosity and well-being when considering age and gender, contradictory studies can still be found. One study concluded that regardless of age, sex, or personality, religion still conveys a strong relationship with purpose in life (Francis, 2000). Since contradictory empirical evidence still exists regarding the influence of such factors, these variables need to be taken into consideration when researching, analyzing, and generalizing any research regarding the relationship between religiosity and purpose in life.

Need for More Research

Further research on religiosity's impact on the human mind and body is needed for a variety of reasons. One reason is because the public is highly interested in religion's association with health and mortality (Miller & Thoresen, 2003). However, aside from public interest, professionals should develop an interest in religiosity's influence on the human person as well.

A recent study recommends that research regarding religiosity's influence on the human mind and body be used within the counseling setting for people of color to promote coping skills (Cervantes & Parham, 2005). Cervantes and Parham (2005) most likely stressed its use in the counseling setting among people of color because spirituality and religiosity is typically found to be a predominant value held within that culture (Mattis, 2000).

Aside from people of color, one researcher even suggests that all psychologists should undergo specialized training in increasing their knowledge and awareness of religion for the sake of all of their clients (Hage, 2006). This makes sense considering meaning in life has been significantly linked to the growth and healing of many clients (Lent, 2004), and research suggests religion is a key factor in providing individuals with a sense of meaning in life. Therefore, it is crucial to identify the underlying factors, such as religiosity, which plays a role in one's meaning in life.

A researcher interested in religiosity's influence on health in chronic pain populations also believes that there is a lack of research in understanding the connections behind the relationships that have been found significant in previous research (Rippentrop, 2005). The most obvious reason for more research was stated best by one researcher who, though intrigued by the positive relationships between religiosity and various mental and physical health domains, suggests that "healthy skepticism" should be used until many of these studies can be repeated and conclusions can be generalized (Thoresen, 1999). Most of the contradiction found among the research on religiosity rests within the differences in definitions and, thus, results need to be discussed in terms exclusively relating to those definitions to avoid confusion (Hackney & Sanders, 2003). Regardless of the reason, there seems to be a consensus that more research is needed to fully understand religion's impact among the human population.

Summary

In summary, religiosity can be explained in a variety of ways, but those aspects concerning knowing, feeling, and doing appear to be the best methods to measure. Religiosity has been linked to many areas among both the mental and physical health of

human beings. Despite the abundance of research, controversy still exists among even the most recent research in the field. One area that has been readily researched involves the connection between religiosity and life satisfaction. However, as life satisfaction can be such a broad entity, many researchers have looked into finding mediators between that relationship. One potential mediator is an individual's sense of meaning and purpose in life. However, there are still contradictory findings within this relationship. A suggestion from several researchers is to look further into the differences between extrinsic and intrinsic religiosity. Also, researchers suggest that age and gender could also impact the relationship between religiosity and purpose in life. Consequently, the present study will examine the relationship between both intrinsic and extrinsic religiosity and one's sense of meaning in life. The focus will be on college students, as religiosity tends to increase with age and differences in gender will be taken into consideration when making any conclusions regarding the results.

CHAPTER III: DESIGN

Participants

Sixty-eight students were recruited for this study, 31 males and 37 females, from a suburban, public, college and had a mean age of 19.56. The participants were diverse in race with 75% of the population identifying themselves as Caucasian, 8.8% Hispanic, 5.9% African American, 2.9% Asian American, 2.9% multi-racial, 1.5% Native American and 2.9% other. Participants also reported belonging to different religions with 57.4% Catholic, 8.8% Jewish, 8.8% Atheist, 4.4% Protestant, 1.5% Muslim, and 19.1% reported themselves as “other.”

Measures

There were four forms used in this study. First, a consent form was signed by the participants, which explained the nature of the experiment and informed the participants that their participation was completely voluntary, confidential, and anonymous.

The second form was a demographic form, which included information about gender, race/ethnicity, age, religious affiliation, and the frequency of attending religious services. Since the frequency of attending religious services is an important aspect of the second hypothesis in this study, it is important to note that participants measured it by indicating a score of one through five. A reported score of one indicated attending religious services once a day, a score of two indicated once a week, a score of three indicated once a month, a score of four indicated once a year, and a score of five

indicated never attending religious services.

Third, participants were asked to fill out the Meaning in Life Questionnaire (MLQ), which is a 10 item questionnaire measuring one's sense of meaning in life (Steger, Frazier, Oishi, & Kaler, 2006). The MLQ used a likert scale and the items were rated from 1 absolutely untrue to 7 absolutely true. Therefore, a high rating indicates a higher meaning in life score, while a low rating indicates a low meaning in life score. The questionnaire was broken up into five items testing one's search for meaning in life and five items testing one's presence of meaning in life. An example of a presence item is, "I understand my life's meaning," while an example of a search item would be, "I am always looking to find my life's purpose."

Lastly, participants were asked to fill out the Intrinsic/Extrinsic Religiosity Scale (I/E-R), which asked participants to respond to 14 items using a 5 point likert scale rating from 1 strongly agree to 5 strongly disagree (Gorsuch & McPherson, 1989). This scale was used to test religiosity because it measures both intrinsic religiosity and extrinsic religiosity. Therefore, a lower rating on an intrinsic/extrinsic item would signify a higher intrinsic/extrinsic religiosity score, while a high rating would signify a lower religiosity score. An example of an intrinsic religiosity item would be, "I enjoy reading about my religion," and an example of an extrinsic item is, "I go to church mainly because I enjoy seeing people I know there." Eight of the items on the I/E-R measured intrinsic religiosity and six items measured extrinsic religiosity. Also, consistent with previous researchers, the word "church" was replaced with "religious services" throughout the measure to be more encompassing of different religions.

Reliability/Validity of Scales

For the Intrinsic/Extrinsic Religiosity Scale there is a .71 alpha level for intrinsic religiosity and a .78 alpha level for extrinsic religiosity. The I/E-R is also said to be the best available measure when studying religion (Van Wicklin, 1990). While there is a slight correlation between the presence of meaning in life and the search for meaning in life, both factors have a good internal consistency of .86 and .87 respectively (Steger, Frazier, Oishi, & Kaler, 2006).

Independent/Dependent variables

The independent variable in this study is religiosity (intrinsic or extrinsic) and the dependent variable is one's score on the MLQ. It was hypothesized that the intrinsically religious group would report having a higher presence of meaning in life, while the extrinsically religious group would report having a higher search for meaning in life. It was also predicted that, since previous research has been so contradictory, gender would not significantly influence the relationship between religiosity and one's MLQ score. High scores on the I/E-R signified a low religiosity score and high scores on the presence and search subtests of the MLQ signified a high MLQ score. Therefore, if a positive relationship exists between the two variables, as was hypothesized, it would be represented by a negative relationship during analysis since the scales were developed opposite of one another.

Analysis of Data

After data collection, four scores were calculated for each participant by summing up the appropriate items on the I/E-R and the MLQ. The four scores were the search for meaning score, the presence of meaning score, the intrinsic religiosity score, and the extrinsic religiosity score. As mentioned before, higher scores on the MLQ indicated

higher search and presence scores, while higher I/E-R scores indicated low intrinsic/extrinsic scores. Therefore, since the two measures were scaled in opposite directions, a negative correlation after statistical analysis would suggest a positive relationship between MLQ and I/E-R scores as hypothesized. A two-tailed correlation test was used at the .01 level to analyze the data from the I/E-R and the MLQ to see whether intrinsic vs. extrinsic religiosity influenced one's scores on the MLQ. An independent samples t-test was also used to see if gender impacted the relationship between religiosity and meaning in life. Further, the relationship between frequency of church attendance and intrinsic religiosity was analyzed using a two-tailed correlation test at the .01 level.

Summary

In summary, all participants completed a consent form, a demographic form, the I/E-R, and the MLQ. The I/E-R was used to determine the extent to which individuals were extrinsically religious or intrinsically religious. Individuals' self-reports were analyzed to see whether intrinsic or extrinsic religiosity significantly influenced one's meaning in life through the use of a correlation test. Specifically, the hypotheses were tested that intrinsically religious individuals would report a higher sense of presence of meaning in life, and extrinsically religious individuals would report a higher search for meaning in life. Further, it was tested to see whether gender plays a role in influencing the relationship between religiosity and purpose in life. Lastly, the frequency of religious attendance was analyzed to determine its validity as a measure of intrinsic religiosity.

CHAPTER IV: RESULTS

Introduction

The purpose of this study was to offer further research on the subject regarding religion's influence on one's well-being. Since meaning in life has been found to mediate the relationship between religion and well-being (Steger & Frazier, 2005), three hypotheses were developed to further analyze religiosity's relationship with meaning in life. First, it was hypothesized that intrinsic religiosity would have a significant, positive relationship with the presence of meaning in one's life, while extrinsic religiosity would have a significant, positive relationship with the search for meaning in one's life. Second, in order to offer more research regarding gender's impact on this relationship, it was analyzed but not expected to play a significant role in the relationship between religiosity and meaning in life. Lastly, it was expected that intrinsic religiosity would be positively correlated with the frequency of religious attendance, suggesting that the frequency of one's attendance of religious services is an adequate measure of intrinsic religiosity.

Hypothesis 1

The first hypothesis that intrinsic religiosity would be positively correlated with having a presence of meaning in life and extrinsic religiosity would be positively correlated with searching for meaning in life was partially supported. The two measures used were the Meaning in Life Questionnaire (MLQ) and the Intrinsic/Extrinsic Religiosity Revised Scale (I/E-R). The MLQ measured two categories, which were the

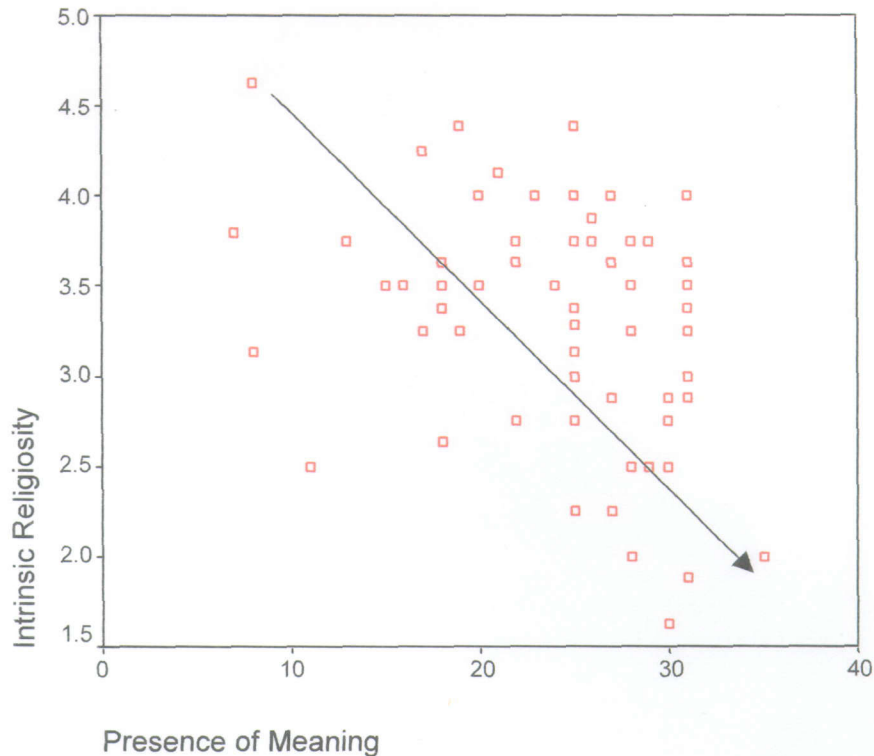
presence of and the search for meaning in life. The I/E-R also measured two categories, which were extrinsic and intrinsic religiosity. Thus, in order to correlate the data, four scores needed to be calculated for each participant regarding their presence of meaning in life, search for meaning in life, intrinsic religiosity, and extrinsic religiosity. The scores were calculated by summing up each of the individual items within the two subcategories found within both the I/E-R measure and the MLQ measure.

The four scores were then correlated using a two-tailed correlation test at the .01 level. Since the scales for each measure were in opposite directions, a negative correlation was needed in order for the hypothesis to be supported. The first half of the hypothesis, (see Figure 4.1) that intrinsic religiosity was positively correlated with having a presence of meaning in life, was significant ($r = -.384, p = .001$). The second half of the hypothesis, that extrinsic religiosity would be positively correlated with the search for meaning was not significant ($r = -.057, p = .646$).

Hypothesis 2

After determining the relationship between religiosity and meaning in life, gender was then factored into the equation to see if it would impact the relationship. It was hypothesized that gender would not have a significant influence on the relationship and this supported by that statistical analysis. A two-tailed independent samples t-test was used and gender did not have a significant impact on any of the variables analyzed. The only variable that approached significance was extrinsic religiosity ($p = .059$).

Figure 4.1 The relationship between intrinsic religiosity and presence of meaning.



Hypothesis 3

The third hypothesis that the frequency of religious service attendance would be positively related to intrinsic religiosity was supported. A two-tailed correlation test was used and there was a significant, positive correlation between the two variables ($r = .605$, $p = .0001$) at the .01 level.

Other Significant Findings

It is important to note that, using a two-tailed correlation test at the .01 level, a significant, positive correlation was also found between extrinsic religiosity and the frequency of attending religious services ($r = .560$, $p = .0001$). Another relevant finding, using the same test, (see Figure 4.2) was that the variables intrinsic religiosity and extrinsic religiosity were significantly correlated ($r = .426$, $p = .0001$). Lastly, there was a

significant, negative relationship, (see Figure 4.3) using the same statistical analysis as the two previous findings, between the search for and the presence of meaning in life ($r = -.341, p = .004$).

Figure 4.2 The relationship between intrinsic and extrinsic religiosity.

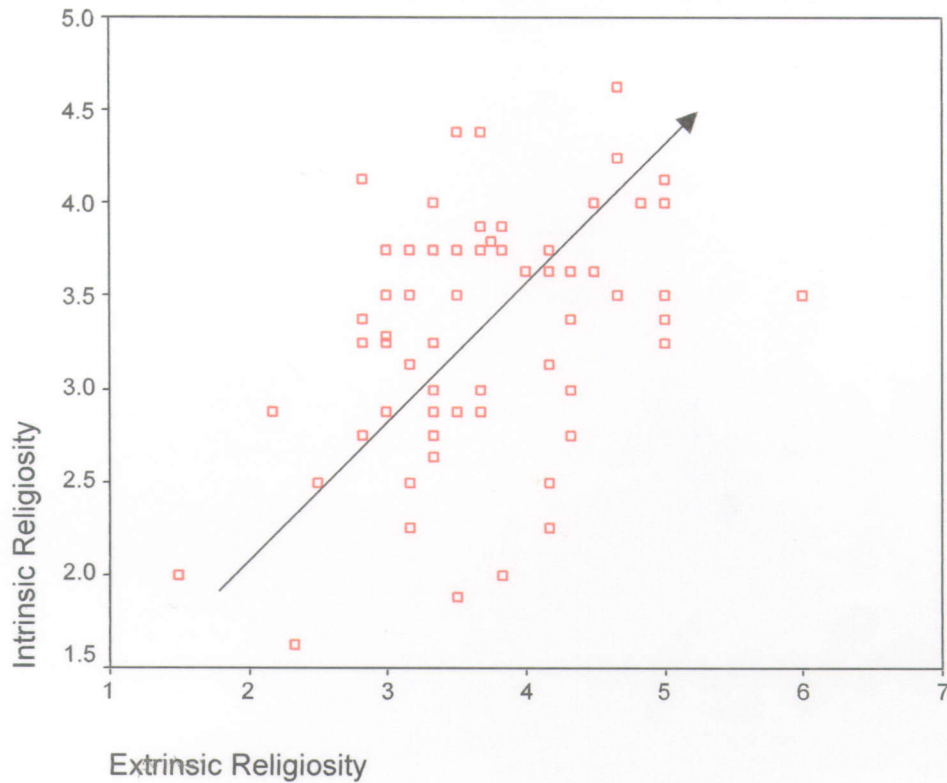
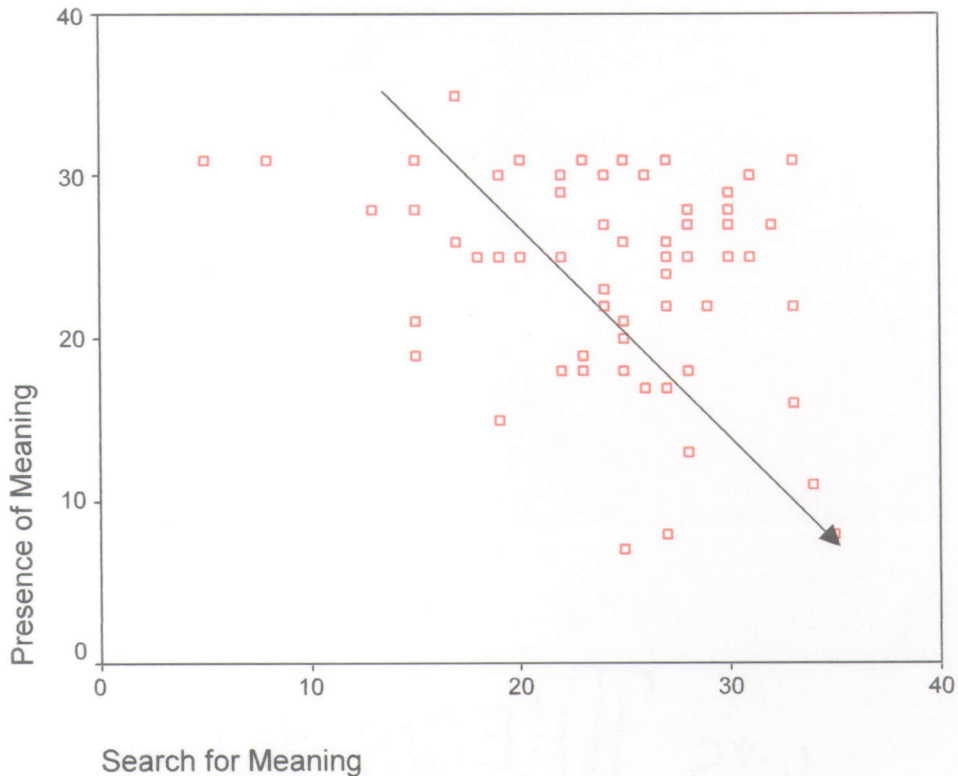


Figure 4.3 The relationship between presence of and search for meaning.



Summary

In conclusion, five two-tailed correlation tests were used to determine the validity of and some possible reasons for the results of the first two hypotheses. The first hypothesis had two parts and was, therefore, only partially supported. The first part hypothesized that intrinsically religious individuals would have a higher presence of meaning in life and this was supported. However, the second part hypothesized that those individuals who were extrinsically religious would report having a higher search for meaning in life, and this was not supported. The second hypothesis, that gender would not impact the relationship between religiosity and meaning in life, was supported. Lastly, it was hypothesized that the frequency of attending religious services would be

related to intrinsic religiosity. The last hypothesis was supported; however, some concerns about the validity of this measure remain and will be discussed, along with the other hypotheses, in further detail in Chapter V.

CHAPTER V: DISCUSSION

Introduction

After analyzing the data, the present study found several significant results regarding religiosity's relationship with meaning in life. These findings are important because religion can be one possible avenue for counselors to explore with clients, and knowing more about its impact on an individual could be helpful for a variety of counselors (Richmond, 2004). While religion has been suggested to help with one's physical health (Kilpatrick & McCullough, 1999; Powell, Shahabi, & Thoresen, 2003), there has been an increasing amount of research regarding religion's influence on one's mental well-being (Park, Cohen, & Herb, 1990; Jones & Francis, 1996; Benjamins, 2006). Steger and Frazier (2005) studied the impact of one's sense of meaning in his or her life in an effort to further understand religion's relationship with one's overall life satisfaction. The researchers concluded that one's sense of meaning in life mediates the relationship between religiosity and overall life satisfaction. Therefore, the present study focused largely on the relationship between religiosity and meaning in life. The term "religiosity" is defined in many ways, but many researchers agree that there are two types: intrinsic and extrinsic (Allport & Ross, 1967; Ardel, 2003). Thus, the present study analyzed intrinsic and extrinsic religiosity's relationship with meaning in life to further understand religion's role within the mental health field.

Hypothesis 1

The first hypothesis was that intrinsic religiosity would positively correlate with

one's presence of meaning in life, while extrinsic religiosity would positively correlate with one's search for meaning in life. This hypothesis was only partially supported, more specifically, intrinsic religiosity's relationship with the presence of meaning in life was significant, but extrinsic religiosity's relationship with the search for meaning in life was not significant. These findings are consistent with previous research, which concluded that only intrinsic, rather than extrinsic, religiosity is significantly related to meaning in life (Auhagen, 2000). Intrinsic and extrinsic religiosity were both involved in the current hypothesis because it was thought that separating the concept of meaning in life into the presence of and search for meaning may reveal different results. However, the present study appears to confirm the previous belief that extrinsic religiosity is not related to meaning in life. Intrinsic religiosity, on the other hand, shows a significant relationship with the presence of meaning in life, and it should be taken into consideration as one possible avenue to explore when helping someone struggle with obtaining meaning in his or her life.

The present study found that extrinsic religiosity and intrinsic religiosity were positively related. This finding suggests that both intrinsic and extrinsic factors are a necessary part of being religious. Therefore, this study proposes that while a person may be considered religious or non-religious, they cannot accurately be labeled as intrinsically religious or extrinsically religious. Instead, individuals who report themselves as being religious encompass both intrinsic and extrinsic behaviors. However, this is not to say that these two types of religiosity cannot impact one's meaning in life differently. As mentioned previously, intrinsic religiosity is significantly related to one's meaning in life, while extrinsic religiosity is not.

Hypothesis 2

A considerable amount of conflicting research exists regarding gender's role in the relationship between religiosity and meaning in life, but this study found that gender was not a significant factor. However, as other studies have suggested, gender should continue to be researched to support this conclusion. In the present study, there was a slight trend towards a relationship between gender and extrinsic religiosity, although it was not significant. Therefore, this topic should continue to be studied in future research regarding this subject.

Hypothesis 3

Lastly, intrinsic religiosity was significantly, positively correlated with the frequency of attending religious services. Therefore, as one of the two variables increased, the other variable increased and, likewise, if one variable decreased the other also decreased. The relationship between these two variables were studied to determine whether the frequency of attending religious services was an accurate measure of intrinsic religiosity because of its use as an intrinsic measure in previous studies (Haerich, 1992; Beckwith & Morrow, 2005). While the relationship alone would suggest an adequate measure, it is not recommended for sole use as an intrinsic measure. The present study found that extrinsic religiosity was also significantly, positively related to attendance. Therefore, the frequency of attending religious services seems to be more appropriate as a measure of overall religiosity, rather than a predictor of intrinsic religiosity. One possible explanation for this finding is that the motive behind attending religious services cannot be fully understood by analyzing attendance alone. Thus, the incentive for attending a religious service is needed to determine whether it is an intrinsic or extrinsic behavior,

since there could be both intrinsic and extrinsic factors contributing to one's attendance of religious services.

Limitations

One limitation of this study was the sample used. Unfortunately, as with most studies, time constraints and available resources did not allow for a larger sample size or a more diverse population to study. The sample was predominantly Caucasian (75%) and Catholic (57.4%) and, consequently, the generalizability of this sample is limited. Also, only college students were used for this study and, likewise, generalizations cannot be made about other age groups. Further, the size of the sample could have influenced some of the current findings. It would have been interesting to see if the trend towards a relationship between gender and extrinsic religiosity would have fleshed out with more participants in the study. Also, even though the I/E-R scale is universally accepted as a reliable and valid measure of intrinsic and extrinsic religiosity, it is recommended to use a sufficiently high sample size with the I/E-R because the extrinsic scale has lower reliabilities than the intrinsic scale (Gorsuch & McPherson, 1989).

Another limitation is that all measures used in this study were self-reports. Therefore, as with all self-reports, there runs the risk of inaccuracy and susceptibility to a variety of different biases. By creating an anonymous and confidential study, it was hoped to avoid some of the biases associated with reporting inaccurate answers. However, participants could still have a difficult time accurately measuring themselves on the items represented in the MLQ and I/E-R.

Lastly, the methodology of this study limits the conclusions that can be made from the current results. Since a correlational design was used, causality cannot be

determined. Therefore, it cannot be known whether an increased intrinsic religiosity will lead one to having a deeper sense of meaning in life or if having an increased sense of meaning will lead to a more intrinsically religious individual. However, because there is a significant relationship between religiosity and meaning in life, this relationship should continue to be studied further.

Conclusion

In conclusion, the results of this study show a significant, positive relationship between intrinsic religiosity and the presence of meaning in one's life. Meaning in life has often been seen as a significant component to one's overall life satisfaction and mental well-being (Zika & Chamberlain, 1987; Steger & Frazier, 2005). Therefore, the current findings offer religion as one possible avenue to explore for helping individuals suffering from a lack of overall life satisfaction. Further, while previous research has debated gender's influence on an individual's tendency towards intrinsic or extrinsic religiosity, the present study found that gender does not play a significant role in one's religiosity. Lastly, the frequency of attending religious services is positively correlated with both intrinsic and extrinsic religiosity and, therefore, should be used in future research to determine religiosity as a whole.

Suggestions for Future Research

Religion's relationship with both physical and mental well-being has been studied for a variety of reasons. However, much of the available research is contradictory, and continued research in this area is encouraged to gain a better understanding of religion's influence on one's physical and mental health. It would be interesting to study more diverse populations to determine if any religion can be helpful in promoting physical and

mental health in various individuals regardless of age, gender, or race. Further, it is suggested that future research examine the causality of the relationship between intrinsic religiosity and meaning in life. Researching gender's impact on one's religiosity is still encouraged despite the non-significant findings within the current study. Lastly, future research should regard the attendance of religious services as a valid measure of religiosity as a whole rather than an intrinsic measure of religiosity.

LIST OF REFERENCES

- Allport, G.W. & Ross, J.M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432-443.
- Ardelt, M. (2003). Effects of religion and purpose in life on elders' subjective well-being and attitudes toward death. *Journal of Religious Gerontology*, 14 (4), 55-76.
- Auhagen, A.E. (2000). On the psychology of meaning in life. *Swiss Journal of Psychology*, 59 (1), 34-48.
- Beckwith, H.D., & Morrow, J.A. (2005). Sexual attitudes of college students: The impact of religiosity and spirituality. *College Student Journal*, 39 (2), 357-366.
- Benjamins, M.R. (2006). Does religion influence patient satisfaction? *American Journal of Health Behavior*, 30 (1), 85-91.
- Bergin, A.E. (1991). Values and religious issues in psychotherapy and mental health. *American Psychologist*, 46, 394-403.
- Carver, C.S., Pozo, C., Harris, S.D., Noriega, V., Scheier, M.F., Robinson, D.S., et al. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology*, 65 (2), 375-390.
- Cervantes, J.M. & Parham, T.A. (2005). Toward a meaningful spirituality for people of color: Lessons for the counseling practitioner. *Cultural Diversity and Ethnic Minority Psychology*, 11 (1), 69-81.
- Chamberlain, K., & Zika, S. (1988). Religiosity, life meaning and wellbeing: Some

- relationships in a sample of women. *Journal for the Scientific Study of Religion*, 27 (3), 411-420.
- Cohen, A.B. (2002). The importance of spirituality in well-being for Jews and Christians. *Journal of Happiness Studies*, 3, 287-310.
- Cornwall, M. (1989). The determinants of religious behavior: A theoretical model and empirical test. *Social Forces*, 68 (2), 572-592.
- Cornwall, M., Albrecht, S.L., Cunningham, P.H., and Pitcher, B.L. (1986). The dimensions of religiosity: A conceptual model with an empirical test. *Review of Religious Research*, 27, 226-244.
- Dorahy, M.J., Lewis, C.A., Schumaker, J.F., Akuamoah-Boateng, R., Duze, M.C., & Sibiya, T.E. (1998). A cross-cultural analysis of religion and life satisfaction. *Mental Health, Religion, & Culture*, 1 (1), 37-43.
- Dorman, J.P. (2002). Validation and use of the Attitude to Christianity Inventory with adolescents and young adults. *Journal of Psychology and Christianity*, 21 (3), 234-243.
- Dulin, P.L., Hill, R.D., & Ellingson, K. (2006). Relationships among religious factors, social support and alcohol abuse in a Western U.S. college student sample. *Journal of Alcohol and Drug Education*, 50 (1), 5-14.
- Dyslin, C.W., & Thomsen, C.J. (2005). Religiosity and risk of perpetrating child physical abuse: An empirical investigation. *Journal of Psychology and Theology*, 3 (4), 291-298.
- Ebaugh, H.R., Chafetz, J.S., & Pipes, P.F. (2006). Where's the faith in faith-based organizations? Measures and correlates of religiosity in faith-based social service

- coalitions. *Social Forces*, 84 (4), 2259-2271.
- Eliassen, A.H., Taylor, J., & Lloyd, D.A. (2005). Subjective religiosity and depression in the transition to adulthood. *Journal for the Scientific Study of Religion*, 4 (2), 187-199.
- Ellison, C.G. (1991). Religious involvement and subjective well-being. *Journal of health and Social Behaviors*, 32, 80-89.
- Fiese, B.H. & Tomcho, T.J. (2001). Finding meaning in religious practices: The relationship between religious holiday rituals and marital satisfaction. *Journal of Family Psychology*, 15 (4), 597-609.
- Fitchett, G., Rybarczyk, B.D., DeMarco, G.A. & Nicholas, J.J. (1999). The role of religion in medical rehabilitation outcomes: A longitudinal study. *Rehabilitation Psychology*, 44 (4), 333-353.
- Francis, L.J. (2000). The relationship between bible reading and purpose in life among 13-15-year-olds. *Mental Health, Religion, and Culture*, 3 (1), 27-36.
- Francis, L.J. (2005). Gender role orientation and attitude toward Christianity: A study among older men and women in the United Kingdom. *Journal of Psychology and Theology*, 33 (3), 179-186.
- Francis, L.J. & Burton, L. (1994). The influence of personal prayer on purpose in life among Catholic adolescents. *Journal of Beliefs and Values*, 15, 6-9.
- Francis, L.J. & Evans, T.E. (1996). The influence of personal prayer on purpose in life among churchgoing and non-churchgoing 12-15 years old in the UK, *Religious Education*, 91, 9-21.
- Frazier, C., Mintz, L.B., & Mobley, M. (2005). A multidimensional look at religious

- involvement and psychological well-being among urban elderly African Americans. *Journal of Counseling Psychology*, 52 (4), 583-590.
- Gerwood, J.B., LeBlanc, M., & Piazza, N. (1998). The purpose-in-life test and religious denomination: Protestant and Catholic scores in an elderly population. *Journal of Clinical Psychology*, 54 (1), 49-53.
- Gorsuch, R.L., & McPherson, S.E. (1989). Intrinsic/extrinsic measurement: I/E-revised and single-item scales. *Journal for the Scientific Study of Religion*, 28 (3), 348-354.
- Hackney, C.H. & Sanders, G.S. (2003). Religiosity and mental health: A meta-analysis of recent studies. *Journal for the Scientific Study of Religion*, 42 (1), 43-55.
- Haerich, P. (1992). Premarital sexual permissiveness and religious orientation: A preliminary study. *Journal for the Scientific Study of Religion*, 31 (3), 361-365.
- Hage, S.M. (2006). A closer look at the role of spirituality in psychological training programs. *Professional Psychology: Research and Practice*, 37 (3), 303-310.
- Hill, P.C. & Pargament, K.I. (2003). Advances in the conceptualization and measurement of religion and spirituality. *American Psychologist*, 58 (1), 64-74.
- Hintikka, J., Koskela, T., Kontula, O., Koskela, K., Koivumaa-Honkanen, H., Viinamaki, H. (2001). Religious attendance and life satisfaction in the Finnish general population. *Journal of Psychology & Theology*, 29 (2), 158-164.
- Jones, S.H. & Francis, L.J. (1996). Religiosity and self-esteem during childhood and adolescence. In L.J. Francis, W.K. Kay & W.S. Campbell (Eds.), *Research in Religious Education*. (pp. 189-205). Leominster: Gracewing.
- Kilpatrick, S.D. & McCullough, M.E. (1999). Religion and spirituality in rehabilitation

- psychology. *Rehabilitation Psychology*, 44 (4), 388-402.
- Kim, Y., Seidlitz, L., Ro, Y., Evinger, J.S., & Duberstein, P.R. (2004). Spirituality and affect: A function of changes in religious affiliation. *Personality and Individual Differences*, 37 (4), 861-870.
- King, G.A. (2004). The meaning of life experiences: Application of a meta-model to rehabilitation sciences and services. *American Journal of Orthopsychiatry*, 74 (1), 72-88.
- King, L.A., Hicks, J.A., Krull, J.L. & Gaiso, A.K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology*, 90 (1), 179-196.
- Kirkpatrick, L.A. (1988). A psychometric analysis of the Allport-Ross and Feagin measures of intrinsic-extrinsic religious orientation. In M.L. Lynn & D.O. Moberg (Eds.), *Research in the Social Scientific Study of Religion: A research annual*, 1, (pp. 1-31). Greenwich, CT: JAI Press.
- Lent, R.W. (2004). Toward a unifying theoretical and practical perspective on well-being and psychosocial adjustment. *Journal of Counseling Psychology*, 51, 482-509.
- Levitt, M. (1995). Sexual identity and religious socialization. *British Journal of Sociology*, 46 (3), 529-536.
- Mahalik, J.R. & Lagan, H.D. (2001). Examining masculine gender role conflict and stress in relation to religious orientation and spiritual well-being. *Psychology of Men & Masculinity*, 2 (1), 24-33.
- Matheis, E.N., Tulsy, D.S., & Matheis, R.J. (2006). The relation between spirituality and quality of life among individuals with spinal cord injury. *Rehabilitation*

- Psychology*, 51 (3), 265-271.
- Mattis, J.S. (2000). African American women's definitions of spirituality and religiosity. *Journal of Black Psychology*, 25 (1), 101-122.
- Miller, W.R. & Thoresen, C.E. (2003). Spirituality, religion, and health: An emerging research field. *American Psychologist*, 58 (1), 24-35.
- Moreman, R.D. (2005). What is the meaning of life? Women's spirituality at the end of the life span. *The Journal of Death and Dying*, 50 (4), 309-330.
- Murphy, P.E., Ciarrocchi, J.W., Piedmont, R.L., Cheston, S. Peyrot, M., & Fitchett, G. (2000). The relation of religious belief and practices, depression, and hopelessness with clinical depression. *Journal of Consulting and Clinical Psychology*, 68 (6), 1102-1106.
- Park, C., Cohen, .H., & Herb, L. (1990). Intrinsic religiousness and religious coping as life stress moderators for Catholics versus Protestants. *Journal of Personality and Social Psychology*, 59 (3), 562-574.
- Perryman, K.V. (2003). Purpose in life, meaning and prayer: Patterns among intercessory prayer providers. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 63, 6103.
- Powell, L.H., Shahabi, L., & Thoresen, C.E. (2003). Religion and spirituality: Linkages to physical health. *American Psychologist*, 58 (1), 36-52.
- Richards, P.S. (1991). Religious devoutness in college students: Relations with emotional adjustment and psychological separation from parents. *Journal of Counseling Psychology*, 38 (2), 189-196.
- Richmond, L.J. (2004). Religion, spirituality, and health: A topic not so new. *American*

- Psychologist*, 59 (1), 52.
- Rippentrop, E.A. (2005). A review of the role of religion and spirituality in chronic pain populations. *Rehabilitation Psychology*, 50 (3), 278-284.
- Ryff, C.D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Seeman, T.E., Dubin, L.F., & Seeman, M. (2003). Religiosity/spirituality and health: A critical review of the evidence for biological pathways. *American Psychologist*, 58 (1), 53-63.
- Steger, M.F., & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness to well-being. *Journal of Counseling Psychology*, 52 (4), 574-582.
- Steger, M.F., Frazier, P. Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53 (1), 80-93.
- Thoresen, C.E. (1999). Spirituality and health: Is there a relationship? *Journal of Health Psychology*, 4 (3), 291-300.
- Van Wicklin, J.F. (1990). Conceiving and measuring ways of being religious. *Journal of Psychology and Religion*, 9, 27-40.
- Whisman, M.A., Uebelacker, L.A., Tolejko, N., Chatav, Y., & McKelvie, M. (2006). Marital discord and well-being in older adults: Is the association confounded by personality? *Psychology and Aging*, 21 (3), 626-631.
- Whittaker, M.L. (1932). Adolescent religion in relation to mental hygiene. *Religious Education*, 27, 811-817.

- Williams, E., Francis, L.J., & Robbins, M. (2006). Rejection of Christianity and self-esteem. *North American Journal of Psychology*, 8 (1), 193-196.
- Wink, P., & Dillon, M. (2002). Spiritual development across the adult life course: Findings from a longitudinal study. *Journal of Adult Development*, 9 (1), 79-94.
- Wink, P. & Dillon, M. (2003). Religiousness, spirituality, and psychosocial functioning in late adulthood: Findings from a longitudinal study. *Psychology and Aging*, 18 (4), 916-924.
- Wong, P.T.P. (1998). Spirituality, meaning, and successful aging. In P.T.P. Wong & P.S. Fry (Eds.), *The human quest for meaning. A handbook of psychological research and clinical applications* (pp. 359-394). Mahwah, N.J.:Erlbaum.
- Worthington, E.L., Wade, N.G., Hight, T.L., McCullough, M.E., Berry, J.T., Ripley, J.S., et al. (2003). The religious commitment inventory-10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology*, 50 (1), 84-96.
- Zika, S. & Chamberlain, K. (1987). Relation of hassles and personality to subjective well-being. *Journal of Personality and Social Psychology*, 53, 155-162.