The Effects of Religious Commitment on Well-Being: Exploring the Relative Importance of Public versus Private Expressions of Faith

by

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A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

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ABSTRACT

Expressions of religious commitment are found to have a positive influence on social support and promote the utilization of adaptive methods of coping with life stress. Likewise, enhanced social support and positive coping techniques are found to benefit individual mental health. Using a cutting edge tripartite conception of mental health that includes psychological, social, and emotional well-being, the relationship between public and private expressions of religious commitment (as indicated by frequency of religious service attendance and strength of religious faith), social support, coping, and well-being is explored. Path analysis performed on a sample of young adults reveals that only private religious commitment has a significant positive effect on well-being and what is more, social support and adaptive coping are the strongest predictors of well-being. The implications these findings have for the scientific study of religion and well-being are discussed in addition to relevant policy recommendations and suggestions for future research.

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CHAPTER ONE: INTRODUCTION

Having good mental health is essential to everyone's basic functioning but mental health has a limited conception. What *is* mental health? The majority of mental health research leads one to believe that it is the mere absence of any diagnosable disease or disorder as the focus has been on pathology; if an individual is free from illness they are, by default, healthy. The positive aspect of mental health, that is, the factors that actually enhance individual well-being, have been given much less attention. Scientific efforts must turn to the development of both concepts and measurement instruments capable of explaining the structure of well-being and its relationship with other social elements (i.e., religion). Like mental health, religion is a somewhat obscure concept that requires further conceptualization and operationalization but distinct "public" and "private" aspects of religious commitment have been identified. Does this distinction matter for a comprehensive conception of positive individual mental health that also stresses public and private components? Is publicly expressing one's faith more beneficial than simply holding private faith?

There is an extensive literature outlining the complex association between various indicators of religion and mental health (see Koenig 2005 and Koenig et al. 2001). Unfortunately, in research, "mental health" is most often conceptualized in pathological terms (i.e., by disease and disorder criteria outlined in the DSM-IV) but a noticeable shift has occurred and researchers are developing more comprehensive, positive focused conceptualizations.

Mental health can be conceptualized in a variety of ways. The World Health Organization (2004) defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (P.12 c.f. Caron and Liu 2007). In the United States, the Surgeon General states that mental health includes... "a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with people, and the ability to adapt to change and to cope with adversity" (1999:4 c.f. Keyes 2002). Finally, the federal government of Canada, in conjunction with the Mental Health Promotion Unit, has developed the following definition:

> Mental health is the capacity of each and all of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and spiritual well-being that respects the importance of culture, equity, social justice, interconnections and personal dignity. (Caron and Liu 2007:3)

In similar regard, scholars have embraced a multifaceted definition of religion, realizing that single measures such as denominational affiliation and frequency of attendance fail to capture other important cognitive and behavioural expressions of the concept. This has led to the development of more precise operational definitions used in religious research. Health scholars, however, have been relatively slow to extend this same consideration to the concept of positive mental health. As illustrated, the comparably more progressive definitions of mental health include a variety of aspects that deserve explicit attention. These definitions illustrate that the absence of disease is not sufficient to declare one mentally healthy; mental health exists along a continuum and to truly be "well" one must thrive *psychologically*, *socially*, and *emotionally*. These three components fall under the

broader concept of subjective well-being, which entails "individuals' perceptions and evaluations of their lives and the quality of their functioning in life" (Keyes 2005: 540). What is important to note is the inclusion of both private and public facets of individual well-being; psychological, emotional, *and* social. Well-being research, if it is to be of any utility, must consider that life is separated into both private and public tasks (Keyes 1998). The social psychological tradition has long recognized this fact: George Herbert Mead conceived of the self as both a private and public construction, stating "the self, as that which can be an object to itself, is essentially a social structure, and it arises in social experience" (1934:140). He challenged the "tendency of psychology to deal with the self as a more or less isolated and independent element" (P.164).

Research investigating the association between religion and positive indicators of mental health (i.e., self-esteem, purpose in life, and hope) is lacking, but more importantly, research examining religion's impact on the more accurate, three dimensional conception of well-being is non-existent. The misconception that disease variables can indicate health and well-being must be addressed to ensure the continued relevance and applicability of social science research in the religion/mental health field.

The development of a conceptual and operational definition is imperative to the study of religion's direct impact on well-being as well as its *indirect* impact on well-being. Research has demonstrated that religion's effect on mental health and well-being may also occur through specific mediating variables. These indirect relationships are comparably more complex: religiosity is positively associated with other social factors (i.e., social support and coping), and these social factors are, in turn, associated with beneficial mental health effects.

As such, one of the main research questions of this project asks: how does the *strength of one's religious faith* impact their psychological, social, and emotional well-being? Strength of religious faith may be equated with the individual's level of religious commitment or the degree to which religion and religious practices have an impact on his/her life; it is a private or internal indication of religious commitment. In examining commitment, Becker (1960) emphasizes the role of the "side bet"[1] where an individual's actions involve other, formerly unrelated, interests directly into those actions so that staying the course will be beneficial, even though the individual may be unaware that the side bet has even been made[2]. A crucial element in this dynamic is the system of values in place, or, put another way, the "good things" the individual will continue to enjoy if they act consistently (P. 39). The enjoyment of greater well-being may, in fact, be a side bet those with higher strength of religious faith have made. Whether they recognize it or not, a stronger commitment to religion in their lives might be promoting their psychological, social, and emotional well-being.

In addition to strength of religious faith, the study is also concerned with the role that *frequency of religious service attendance* plays in the relationship between religion and well-being. Frequency of religious service attendance, in contrast to strength of religious faith, is a public or external indication of religious commitment; comparably more committed individuals would be expected to attend religious services on a more

[1] Becker uses an economic example to illustrate the side bet: an individual offers $16, 000 to buy a house but the seller insists on $20,000. The prospective buyer then informs the seller that he/she has bet a friend $5,000 that they will not pay more than $16,000 for the house. The seller has no recourse as the buyer will lose money by increasing their offer. The buyer has committed him/herself to paying no more than $16,000. The bet was an extraneous interest now attached to the purchase of the house. Deviating from the original plan will be detrimental so one would stick to the initial plan in order to benefit.

[2] Side bets do not have to be made consciously. Becker states that what is interesting is explaining situations where individual involvement in social organizations makes side bets *for* that individual, limiting future behaviour.

regular basis than less committed individuals. Moreover, increased attendance may also facilitate the provision of social support and particularly adaptive ways of coping that have been demonstrated to positively impact mental health and well-being. In this regard, of equal importance is the question concerned with the mechanisms through which religion exerts its influence. Specifically, *does strength of religious faith and frequency of religious service attendance impact well-being through the mediation of social support and particular ways of coping?* The significance of this project lies mainly in the aforementioned need to discover how religion influences a comprehensive, and therefore, more accurate conception of well-being. However, the study will also contribute to the literature examining the prevalence and nature of religion in young adults as well as the nature of well-being in this same demographic.

Chapter two outlines the nature of religion and well-being in addition to an explanation of the impact that religion has on both pathological and salutary indicators of well-being. Chapter three discusses the dataset and methodology, states the empirical expectations and describes the sample characteristics, measures, and analysis technique. Chapter four presents the bivariate analyses describing various socio-demographic differences in religion and well-being as well as the multivariate regression results of the path analyses. Chapter five provides an in-depth discussion of the multivariate findings and is followed by acknowledgement of the limitations of the study. Suggestions for future research are offered and several policy recommendations are also made.

CHAPTER TWO: EXPLORING RELIGION AND WELL-BEING

This section reviews the literature on religion, well-being, and the relationship between religion and well-being. The multifaceted nature of both religion and well-being are explored in detail, in addition to the social factors thought to mediate this relationship. While contradictory results are sometimes found, it is still possible to draw broad, general conclusions; past research has found increased religiosity to be beneficial for individual mental health.

2.1 Religion

The term "religion" is relatively vague and while there is no universal consensus on the definition, the general nature of the concept can be delineated.

> Religion is an organized system of beliefs, practices, and rituals of a community. Religion is designed to increase a sense of closeness to the sacred or transcendent (whether that be God, a higher power, or ultimate truth/reality), and to promote and understanding of one's relationship to and responsibility for others living together in a community. Religion, then, is community focused (organized into formal practices that are observable and measurable), may be authoritarian in terms of behaviors and responsibilities, and is often concerned with beliefs and doctrines that, among other goals, seek to separate good from evil. (Koenig 2005:44)

In addition, one must consider how, specifically, the individual accepts religion. Allport and Ross (1967) describe intrinsic and extrinsic religious orientations. Those individuals with an intrinsic religious orientation value religion in and of itself. Any other benefits religion offers are secondary to this ultimate significance. "Having embraced a creed the individual endeavors to internalize it and follow it fully. It is in this sense that he *lives* his religion" (P. 434 original emphasis). Individuals with an extrinsic orientation use religion as a means to and end whether to gain social status and networks, comfort, or to justify

their life and actions. In any case, religious teachings are secondary, shaped to serve the individual's primary needs. "The extrinsic type turns to God, but without turning away from self" (P. 434). The presence of these differing orientations has important consequences for individual well-being. One's level of intrinsic religious orientation is one of five factors that predict the speed of depression recovery (Koenig 2005; see also McCullough and Larson 1999). Research also indicates that anxiety is positively correlated with an extrinsic orientation but is negatively associated with an intrinsic orientation (Baker and Gorsuch 1982 c.f. Koenig 2005).

Religion, thus, is multidimensional and empirical research has targeted each of its varied aspects in the interest of uncovering its dynamic relationship with other indicators. Studies tend to emphasize the following facets: public participation, private practices, religious affiliation, and religious coping (George et al. 2002). Public participation captures acts such as service attendance and other institutional-related activities like Bible (or other religious scriptures) study groups. Private practices refer to time spent in personal prayer, meditation, and the reading of religious texts. Religious affiliation describes the individual's self-identification of denominational membership and religious coping indicates the utilization of religion and religious teachings in dealing with stressors (George et al. 2002).

Hackney and Sanders (2003) find that measures of institutional religiosity (including service attendance, activity participation, and prayer) produce the weakest associations between religion and mental health. Measures of ideology (including belief salience) and personal devotion (intrinsic religious orientation and emotional attachment to God) produce the strongest correlations. However, George et al. (2000) find the

strongest predictor of better health to be public religious participation. This leads one to question the role public religious practice really plays in mental health and well-being. Regardless of the operational definition, research has uncovered a generally positive relationship between indicators of religion and mental health (Hackney and Sanders 2003). Put another way, individuals who are more religious and those who truly accept religion (intrinsically) tend to enjoy better mental health[3].

2.2 Public versus Private Religious Commitment

Statistics Canada finds that Canadian religious service attendance has been decreasing. Results from the General Social Survey show that in 1985, 30 percent of Canadians aged 15 and older attended services at least once a week; in 2005, that figure dropped to 21 percent. As of 2005, the number of people who never attend services is one in three, a substantial increase from 22 percent in 1985 (Lindsay 2008). It seems that a discrepancy exists, however. One would think that low attendance reflects unfavorable attitudes toward religion; it seems reasonable to expect that those individuals who attend religious services more often also maintain a higher level of personal faith (and vice versa), but one can certainly entertain the possibility that some highly spiritually devoted individuals reject organized religious practices and refuse to attend services. Likewise, individuals

[3] It must be noted that this is only one side of the argument; religion is sometimes found to be associated with negative mental health outcomes. Religion may be used to generate feelings of guilt, shame, and fear and can result in social isolation when individuals refuse to conform to dominant religious standards (Koenig 2001). Religion is also correlated with prejudice and discrimination. Hunsberger (1996) finds that religious fundamentalism is associated with right-wing authoritarianism. Right-wing authoritarianism includes highly punitive beliefs, hostility toward outsiders, and prejudice toward people who are different (Altemeyer and Hunsberger 1992). Religion is associated with dogmatic thinking patterns, where individuals stubbornly hold fast to their beliefs and opinions, obsessive traits, like those that characterize Obsessive Compulsive Disorder, and perfectionism where anxiety results from unexpected outcomes (Koenig 2005).

who frequently attend religious services may do so only out of convention, either because it is tradition or to appease others (i.e., family members). What is more, empirical evidence contradicts the notion that attendance and personal devotion are one and the same.

The 2002 Ethnic Diversity Study finds that while only 32 percent of Canadian adults attend services at least once a month, 53 percent engage in regular private religious activities (Clark and Schellenberg 2006). As expected, frequency of private religious activity increases with frequency of attendance, but interestingly, 37 percent of infrequent attendees and 27 percent of those who did not ever attend in the past year report weekly private religious behavior (see also Bibby 2002). These numbers combine to represent 21 percent of the Canadian adult population. With regard to those least likely to attend, 27 percent of Canadians aged 15 to 29 reported no attendance, but engage in weekly private religious behavior. Moreover, of those individuals who never attend but *do* engage in private religious behavior, 45 percent assert religion is "very important" to them (Clark and Schellenberg 2006). These numbers indicate that measures of involvement that focus on attendance and public displays of religiosity cannot be the sole indicators of religious commitment and expression. If these measures alone continue to be relied upon, the results may be largely invalid.

Divergence between attendance and commitment has drawn the attention of members of the scientific community, particularly in Europe with the concept of "believing without belonging" (see Davie 1994, 2008) and is developing a theoretical basis. In the United States, Roof and McKinney (1987) put forth the idea of "new voluntarism". They claim Americans continue to respect religion but increasingly

consider it to be a matter of personal choice reflecting individual preference. Faith, they say, is a point of view that can be quite easily changed; religion becomes deeply subjective and is divorced from traditional social customs and bonds. People can construct their own faith and religion, picking and choosing among various aspects of belief.

Empirical evidence demonstrates the persistent strength of religion in Canada, despite declining participation. Bibby (2002) argues that Canadians are not abandoning religion, but are becoming more selective in their involvement. He sees this trend as purposeful because it is much more conducive to contemporary lifestyles. More importantly, his research reveals the possibility for a resurgence of public religious participation. Regardless of decreased institutional involvement, Bibby (2002) finds latent indicators of spirituality persist, notably Canadians' preoccupation with mystery, meaning, and religious memory. Mysterious happenings such as dreams that foreshadow events in reality and strong impressions of people or things that eventually turn out to be accurate are often imbued with religious significance. Canadians are still asking existential questions pertaining to the meaning of life and what happens after death. Furthermore, Canadians continue to psychologically identify with religious communities, despite their lack of attendance. These people expect to return to religious groups for rites of passage such as marriage and the baptism of children. Bibby (2002) finds that 55 percent of adult religious families are open to increased religious involvement if it would be worthwhile to them. Moreover, one in three Canadians with no religious affiliation are receptive to greater involvement under these same conditions, indicating that the need and the desire for religion is alive and well but that the style of delivery is problematic.

2.3 Well-Being

Much like religious service attendance fails to accurately indicate the amount of faith one holds, claims that mental illness indicators capture mental health are deceiving. Limiting mental functioning to the two broad areas of health and illness serves to polarize the concept into a false dichotomy; an individual who meets the specified criteria for a mental illness is automatically mentally *un*healthy. Mental health and mental illness are not mutually exclusive. They are not simply "opposite ends of a single continuum" (Keyes 2002:209). Keyes (2002) provides a detailed discussion of mental health and its fundamental components. Mental health has both an affective and functional component; the individual must be emotionally (affective), and psychologically and socially well (functional). To be mentally healthy, one must experience the presence of positive emotions (and the absence of negative emotions) and enjoy the presence of positive functioning (and the absence of negative functioning). These two elements reflect two distinct aspects of well-being: positive affect refers to hedonic well-being (happiness) whereas positive functioning refers to eudaimonic well-being, which emphasizes human potential (Keyes et al. 2002; Keyes 2005).

2.4 Emotional well-being. Emotional well-being or subjective well-being, as it is sometimes referred (Keyes et al. 2002), is concerned with "how and why people experience their lives in positive ways" (Diener 1984:542) and emphasizes the individuals' standard of a good life and pleasant emotional experiences (Diener 1984). Emotional well-being is operationalized as the presence of positive affect (feelings or emotions) and the absence of negative affect as well as a relatively high satisfaction with life.

2.5 Psychological well-being. Psychological well-being, in the broadest sense, is an individual's level of positive psychological functioning. Past research on this concept included multiple varied definitions that lacked a strong theoretical foundation. Dissatisfied with this, Ryff (1989) compiled an extensive list of the many conceptual and operational definitions. She identified six defining features of psychological well-being that illustrate fundamental "values and ideals of the human experience" (Ryff 1995:99): self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy. Ryff and Singer (1996: 17) describe the nature of these six dimensions: those who score high on *self-acceptance* have a positive self-concept; they acknowledge both the good and bad aspects of themselves. A low scorer has a negative self-image, negative feelings about their past life, and wishes to change particular personal attributes. Those who score high on *positive relations with others* enjoy "warm, satisfying, trusting relationships with others" (Ryff and Singer 1996:17), they are concerned with others' welfare, they are able to display empathy, affection, and intimacy, and they understand the general dynamics of social relationships. Low scorers have few close relationships, find the aforementioned emotions difficult, have relatively little concern for other people's welfare, and experience frustration in their personal relationships. *Autonomous* people are "self-determined and independent" (Ryff and Singer 1996:17), can resist social pressure to think and behave in particular ways, self-regulate, and abide by their own individual standards of value. Less autonomous individuals are relatively more preoccupied with the "expectations and evaluations of others" (Ryff and Singer 1996:17), they tend to make decisions based on outside judgments, and often submit to social pressures to conform. Someone who has *mastered*

their environment "controls [a] complex array of external activities" (Ryff and Singer 1996:17), capitalizes on available opportunities, and shapes their surroundings to adequately meet their own needs. Someone who scores relatively low on environmental mastery finds it difficult to manage their life, take advantage of opportunities, and influence their immediate surroundings. Basically, they experience a general lack of control. Individuals with strong *purpose in life* have and pursue goals, they feel both that their lives have meaning and have beliefs that give their life purpose. Those who have a reduced life purpose lack meaning, goals, aims, and have very little direction in their life. Finally, those people who score high on *personal growth* continually develop themselves, they recognize their potential, welcome new experiences, and are able to change in ways that demonstrate an increased sense of self-awareness and effectiveness. Individuals with low personal growth remain comparably inactive, they find life uninteresting, and do not believe they can change their behaviours and attitudes.

2.6 Social well-being. Social well-being is the third facet of the tripartite definition of well-being. Emotional and psychological well-being deal largely, with private phenomena. The addition of social functioning to individual well-being illustrates that positive functioning does not consist solely of private experiences. People are embedded in social structures that present different social challenges and any definition of functioning must also consider social functioning (Keyes 1998). He states that "social well-being is the appraisal of one's circumstance and functioning in society" (P.122). Social well-being has five distinct components: social coherence, social actualization, social integration, social acceptance, and social contribution. *Socially integrated* individuals feel that they have things in common with others in their social world and feel

connected to both their community and society. Individuals who are *socially accepting* trust others, see others as kind, and generally hold favorable views of humanity. People who *contribute socially* believe they are an important, valued, and effective member of society. *Social coherence* asks the extent to which people desire to know about the world. Individuals with a high level of social coherence both care about the world they live in and can understand the way things work within in. Finally, *social actualization* refers to people's "evaluation of the potential and trajectory of society" (Keyes 1998: 123). Individuals with higher social actualization have more hope that society is improving or will improve for everyone.

Mental health, then, is defined as a "complete state" characterized by the presence and absence of *both* positive and negative symptoms. An individual's mental health can range anywhere from complete to incomplete and from flourishing to languishing (Keyes 2002:210). Such a conception makes empirical (and common) sense. It is unlikely that one will find an individual completely lacking in *all* of the aforementioned areas or one who is devoid of *any* negative tendencies. We might be healthy, but we could be healthier; we might be sick, but we could always be sicker. Individuals considered to be "flourishing" have positive emotions and function well both psychologically and socially and are free from mental disorder. People considered "languishing" experience negative emotions, have low psychological and social well-being, and may or may not also suffer from a type of mental illness (2002:210). In a study of individuals aged 25-74, Keyes (2005) finds that 18% of adults are flourishing. Most adults, however, are somewhere in the middle and can be considered "moderately mentally healthy" (P. 544), but 17% are languishing mentally. The results demonstrate that as many people are languishing as are

flourishing. Moreover, evidence indicates that there are, in fact, correlations between measures of health *and* illness supporting the notion of a "mental health continuum". Approximately one third of people who are languishing and depressed and 15% of people who are languishing *with* depression also report very good or excellent emotional health (Keyes 2002). He also finds that indicators of mental health and mental illness are separate but moderately correlated (2005).

2.7 Religion and Well-Being

Research shows a largely inverse relationship between religion and negative mental health indicators and a positive relationship between religion and positive mental health indicators (Ellison and Sherkat 1995; see also Koenig 2005 and Koenig et al. 2001 for extensive reviews). Each will be examined in turn.

2.7.1 Negative mental health indicators. Individuals who are more religious have lower levels of depression (see also Kendler et al. 1997) and anxiety, and this relationship maintains in both cross-sectional and longitudinal studies (Koenig 2005). In one meta-analytical study, Koenig (2001) finds that 63 percent of studies report a negative association between religion and depression, while only four reported an increase in depressive symptoms with increased religiosity. Overall, those without a religious affiliation are at an increased risk for depression than those who are affiliated (McCullough and Larson 1999). For those with a mental illness, the longitudinal results reveal that level of religious involvement helps predict the speed of recovery from depressive episodes (Koenig 2005; see also George et al. 2000). Of the 69 studies

examining anxiety and religion, 35 reported lower anxiety and fear, while only 10 reported increased levels of these emotions (Koenig 2001).

Religion is consistently negatively correlated with alcohol and drug use and abuse, especially among younger people (Koenig et al. 2001; see also Koenig 2001). Multiple indicators of religiosity are significantly and negatively associated with alcohol use (Kendler et al. 1997). In particular, research demonstrates that college students with no religious affiliation drink significantly more and get drunk significantly more than those students with a Catholic or Protestant affiliation (Patock-Peckham et al. 1998). In the majority of studies, *whenever* religious variables have been included in the analysis (including membership, active participation, or meaningfulness to the person), a lower incidence of drug use has been observed (Gorsuch and Butler 1976; see also Miller et al. 2000). Increased religious devotion also demonstrates an inverse relationship with alcohol use (Kendler et al. 1997; Miller et al. 2000). Finally, religion has a negative impact on suicide. Research shows that increased religious involvement is correlated with lower levels of suicide, suicidal behaviors, suicidal ideation, as well as tolerance of suicide (Koenig et al. 2001; see also Koenig 2005).

2.7.2 Positive mental health indicators. In recent years, no studies have recorded a negative association between religion and well-being, though some find weak associations or no associations at all (Koenig 2005). In a comprehensive review, Koenig (2005; 2001) finds that of 100 studies, 80 percent resulted in a statistically significant positive relationship between increased religious involvement, positive affect, happiness, life satisfaction, higher morale, and positive indicators of mental health, in general (see also Ellison et al. 1989; Payne et al. 1991; Reed 1991; Koenig and Larson 2001).

Research demonstrates a correlation between religion and increased levels of life purpose and meaning (Koenig 2005), greater hope and optimism for the future, higher self-esteem, and increased social support (Koenig et al. 2001). Religion is shown to promote an internal locus of control or a sense that one is able to effectively impact the events that occur in their lives (Koenig et al. 2001).

2.8 Proposed Mediators between Religion and Well-Being

There are many different mechanisms proposed to explain the connection between religion and well-being. Though there is some slight variation, five core mechanisms pervade the literature: health behaviors and lifestyles, positive self-perceptions or psychological resources, sense of coherence and meaning, coping and stress buffering, and social support (see George et al. 2002; Ellison and Levin 1998; Ellison and Sherkat 1995; Ryan et al. 1993; Ellison 1991). These mechanisms continually overlap, illustrating the many complex paths from religion to well-being but coping and social support emerge as the most frequently investigated mediators.

2.8.1 Ways of coping. Coping refers to the things that people *do* to avoid the harm resulting from various life strains and stresses (Pearlin and Schooler 1978). Coping responses are "the behaviors, cognitions, and perceptions in which people engage when actually contending with their life problems" (P. 5). Pearlin and Schooler (1978) identify three major types of coping: (1) responses that change the problematic situation; (2) responses that control the meaning of the situation after it occurs, but before stress sets in, and; (3) responses that manage stress once it emerges. In this regard, the second type of coping matters to mental health and well-being because the meaning individuals assign to

situations largely determines the extent it poses a threat (Pearlin and Schooler 1978). Logically, situations perceived to be a great threat will generate higher levels of stress, which negatively impacts mental health, than those considered less threatening.

Folkman and Lazarus (1980:223-224) comment that coping serves two specific functions; *problem-focused coping* on the one hand, includes efforts to manage or change the environment in which the individual experiences stress; *emotion-focused coping*, on the other hand, includes efforts to manage or regulate the stressful emotions that arise from negative experiences. They further state that the appraisal of events (the nature of the situation and how stressful it is) and coping continually influence one another. The individual will appraise their situation (i.e., recognize that they are facing a harm/loss, threat, or challenge) and then engage in activities to both change the person-environment relationship (problem-focused coping) and/or control their emotional response (emotion-focused coping). These changes result in new situation appraisals and revised coping efforts, and so on. The authors find that emotion-focused coping efforts are more often used in situations that are immune to constructive action whereas problem-focused coping efforts are more often used in situations where the individual can have an impact on the outcome. The distinction between different styles of coping is important as diverse coping styles are found to be associated with more or less positive outcome measures. Carver et al. (1989) find that active coping and planning are significantly associated with positive indicators of personality, including optimism, control, and self-esteem and are negatively associated with anxiety. Conversely, denial and behavioural disengagement, which can be linked to emotion-focused efforts (at least conceptually), are found to be

significantly negatively associated with optimism, control, and self-esteem and are positively associated with anxiety.

Throughout the coping process, religion can influence the initial meaning attributed to situations (Park 2005). Specifically, Ellison and Levin (1998) note that prayer and other religious coping efforts might influence the primary appraisals of events, causing people to reconsider problematic or stressful situations as opportunities for growth and learning, and/or they may come to believe it is part of a larger divine plan. Specific religious coping techniques may also enhance feelings of secondary control, in turn, enhancing the individual's confidence in their ability to manage the situation and facilitate a positive outcome. Religion is an important orientation that people use to understand their world and make "reality and suffering understandable and bearable" (Pargament 1997 c.f. Park 2005:711), but it is imperative to note that the degree to which religion is used in the coping process depends upon the extent that religion informs the individual's orientation to the world. When religion is highly important to an individual, they are more likely to use it in the coping process (Park 2005). Moreover, the extent to which religion is used in coping may also depend upon the type of stressful situation the individual is facing; circumstances where the problem cannot be solved (i.e., a death in the family), are much more amenable to religious influence (Mattlin et al. 1990).

In a study of college students who reported the recent loss of a significant other, Park (2005) finds that meaning-making coping (deliberate efforts to conceive stressful events as less distressing) is an important mediator in the relationship between religion and well-being. Path analysis finds religion to be a significant predictor of subjective well-being, mediated through meaning-making coping. Religion is also a significant

predictor of stress-related growth, partially mediated through such coping. Park's results reveal that "religion may serve as a meaning system within which the bereaved can reframe their loss, look for more benign interpretations, find coping resources, and, perhaps, identify areas of personal growth" (P. 721).

Pargament et al. (1990) observes an important differentiation within coping and well-being. It appears that methods of religious coping are related to, but not the same as, non-religious coping techniques. Additionally these authors find that methods of religious coping have different effects than dispositional indicators of religion (i.e. measures that assess generalized beliefs and practices). Religious coping measures, they find, are much stronger independent predictors than the more general measures. This begs a fundamental question within the association between religion, coping, and well-being. The fact that research indicates religious coping techniques are distinct from coping techniques in general does not provide evidence, in either direction, for a potential correlation between those who are more religious and effective coping in general. In other words, we do not know if comparably more religious individuals are better at coping with strains, stresses, and negative events than less religious individuals, regardless of the particular technique and whether or not the tendency to cope in more adaptive ways enhances well-being.

2.8.2 Social support. Social support is itself a type of coping resource; it is a social "fund" that people access to deal with stressful events, usually referring to either the actions of family, friends, and other close individuals or to the *perception* of available support (Thoits 1995:64 emphasis added). In fact, many studies indicate that the perception of available support may be more important in predicting mental and physical

health outcomes than objective support (see George et al. 2002; Ellison and Levin 1998; and Thoits 1995).

To adequately grasp the specific relationship between religion, social support and well-being, it is necessary to address particular aspects of stress theory (see Pearlin et al. 1981; Cohen and Wills 1985 for an extensive discussion). As individuals accrue stress, their ability to cope with the stress-inducing events may be diminished, which may in turn negatively impact their psychological and physical resources. Such loss might increase the risk of illness and/or psychological distress. Empirical evidence does indicate that experiencing negative life events over a particular time period predicts future "physical morbidity, mortality, symptoms of psychological distress, and psychiatric disorder" (Thoits 1995:54). Social support can be a powerful mediator in such outcomes; the extent of this relationship is demonstrated by House et al. (1988) who find social relationships predict health outcomes across sex and other population characteristics with extraordinary consistency, even after controlling for biological and medical factors (see also George et al. 2002). In this regard, social support is very relevant to health and well-being, and likewise, religious practice has undeniable importance to individual social support. For instance, statistically significant positive associations are found in 19/20 studies concerning indicators of religious involvement and social support (Koenig 2001; see Ellison and George 1994; Bradley 1995).

Four dimensions of social support have been the focus of religion's impact: structural characteristics (network size), social interaction (degree to which individuals interact with one another), instrumental assistance (tasks performed by network members such as providing transportation and care when sick), and as mentioned, subjective social

support (perceived satisfaction) (George et al. 2002). It seems, however, that these four dimensions may function through frequency of attendance. Attendance at religious services has been identified, by some, as the most powerful predictor of health and mortality (George et al. 2002). Ellison and George (1994) find that individuals who attend religious services weekly have 2.25 times more non-kin ties than those people who never attend service. The evidence proposes that regular attendance facilitates larger and denser social networks as well as an increased number and type of exchanges of goods and services (Ellison and Levin 1998). In terms of enhancing social networks, these authors state that the likelihood of friendship development is increased among people with similar values and interests. Regular religious service attendance translates into regular contact between people with similar ideas of faith as well as social and political values. Ellison and George (1994; Ellison and Levin 1998) elaborate on this idea, commenting that religious participation brings together people with compatible status characteristics, such as social class, education, race, and lifestyle. This general "sameness" provides a solid and likely foundation for the development of relationships that can continue in secular contexts.

Shared characteristics and the sense of community that frequent attendance allows may influence well-being by the enhancement of subjective social support. Frequent attendees might feel a stronger sense of integration, and feel they are loved and valued, which could impact their perception of their interpersonal relationships. As a result, they might contend that their interaction with other congregants are more satisfying and supportive (Ellison and George 1994; Ellison and Levin 1998). Comparably more instrumental needs may also be met through regular attendance. Churches and places of

worship often offer community outreach programs addressing various needs (Ellison and Levin 1998), including provision of food and clothing, counseling services, and charitable causes.

The literature review identifies some important conclusions regarding the conceptualizations and dynamics involved in the relationship between religion and mental health. Religion and mental health are found to be complex, multidimensional concepts. Measures of religion include both private and public indicators that reflect both manifest behaviours, such as service attendance and prayer, as well as the more private sphere of ideology, that reflects the importance of religious beliefs. Despite its complex nature, the varied dimensions of religion are found to be positively associated with indicators of mental health and well-being. Well-being, like religion, is multidimensional; the concept illustrates the positive aspects of mental health that focus on what exactly promotes and maintains good mental health. Well-being has three distinct, yet related facets: psychological, social, and emotional well-being and these three facets are both public (social well-being) and private (psychological and emotional well-being). Moreover, these three facets are themselves made up of several independent components.

Measures of religion are found to reduce negative indicators of mental health, such as depression, anxiety, and substance use, and are positively associated with positive indicators of mental health, such as life satisfaction, internal locus of control, and self-esteem. The relationship between religion and mental health involves indirect effects in addition to direct effects; several mediators have been identified as crucial components of the association. Religion is associated with an increased level of social support and is also linked to particular ways of coping, that aid in the management of stress. The provision

of social support may be a direct function of public religious participation, such as frequency of service attendance, whereas religious beliefs may assist individuals to find meaning in stressful life situations. In turn, social support and particular ways of coping are associated with better mental health and well-being.

2.9 Critique of the Literature

In addition to the fundamental limitation of emphasizing disease and disorder outcomes instead of positive mental health indicators, the other major shortcoming of the literature concerns the age of the samples in studies of both religion and positive mental health. For instance, George et al. (2002) state that over half of the studies examining the religion-health connection use older adults aged 60-65+. Likewise, McCullough and Larson (1998) lament that although research has been conducted on different age groups, researchers, in general, have not focused long-term efforts on age groups aside from geriatrics. This may be one of the contributing factors for the copious amount of medical outcomes as chronic and life threatening illnesses usually do not develop until later life, so meaningful analyses are somewhat age-dependent (George et al. 2002). Nevertheless, Hill and Pargament's (2003) demand for religious measures that target specific populations encountering specific stressors justifies a shift in focus toward younger populations just as it does for older populations. Furthermore, empirical evidence calls for extensive examination of the role religion plays in the lives of younger people and how it may influence their well-being.

While it is true that a relationship with 'God' and frequency of prayer increase with age, Ellison (1991) finds that, "the beneficient effects of such divine interaction are

not significantly greater for older persons than for their younger counterparts" (P. 90). Religious preadolescents and adolescents have significantly more positive scores on indicators of adjustment than their non-religious peers (Milevsky and Levitt 2004). Religious children also have significantly higher levels of self-esteem and significantly lower levels of depression.

Moreover, investigations using younger samples reveal that religion seems to be important to young adults, regardless of their religious service attendance, which reiterates the need to include both public and private religious indicators in research but treat them independently of one another. In his Project Teen Canada study, Bibby (2002) finds that among individuals aged 15-19, 40 percent are willing to increase their public religious involvement if it would be worthwhile to them. This number is approximately double the proportion of young people who currently do attend services.[4] The connection between private feelings and the public expression of those feelings is an empirical question and studies using younger samples may offer great insight into this relationship.

In the religion and mental health field, there is a relative lack of studies performed with college students and more importantly, the studies that do use college students largely focus on religion and pathological outcome measures (in Koenig et al.'s 2001 review). Before 2001, 16 studies examined depression, 14 looked at suicide, 25 measured anxiety, 17 addressed alcohol use/abuse, and 14 addressed drug use/abuse. Only four studies involving college students addressed general well-being, seven addressed general religious coping, four addressed hope and optimism, and three addressed

[4] Only 16 percent of young adults between the ages of 15 and 24 years attend services at least once a week (Lindsay 2008).

purpose/meaning in life. Considerably more studies looked at self-esteem in college students, but *none* of the studies listed concerned social support in college students.

All of this evidence culminates in a general recommendation for future studies examining religion and well-being: more research is needed that: (1) considers positive indicators of well-being; (2) includes positive indicators that are comprehensive and multidimensional; (3) measures the intrinsic and private indicators *in addition* to public indicators of religion; and (4) samples should include younger adults. The present study addresses these limitations and consequently should prove a useful contribution to the literature on religion and mental health.

CHAPTER THREE: METHODOLOGY AND MEASUREMENT

The following chapter discusses the dataset and the methodology, specifically outlining the empirical expectations and sample characteristics, describes the measures, and presents the analysis technique.

3.1 Empirical Expectations

Although there is no research measuring religion's impact on psychological, social, *and* emotional well-being, the findings of studies that examine religion's impact on both pathological indicators of mental health (i.e., depression and anxiety) and positive indicators of mental health (i.e., happiness and life satisfaction) provide an excellent basis to inform the empirical expectations of this study. In this regard, the first hypothesis of this study is that 1) *the direct effects of strength of religious faith and frequency of religious service attendance will be positively correlated with social, emotional, and psychological well-being (and overall well-being)*[5].

In addition to describing the direct effect of religion on mental health, the vast literature also expands on the more complex paths that explain just how exactly religion is able to exert these advantageous effects. Many indirect links between religion and mental health have been found. Of these, two mechanisms—social support and ways of coping—stand out as particularly important mediators. To this end, in the interest of arriving at a more comprehensive explanation of the relationship, the second hypothesis is that 2) *social support and ways of coping will indirectly affect the relationship between strength of religious faith, frequency of service attendance, and the four types of well-*

[5] When combined, the three individual components of well-being (psychological, social, and emotional) indicate an individual's overall well-being.

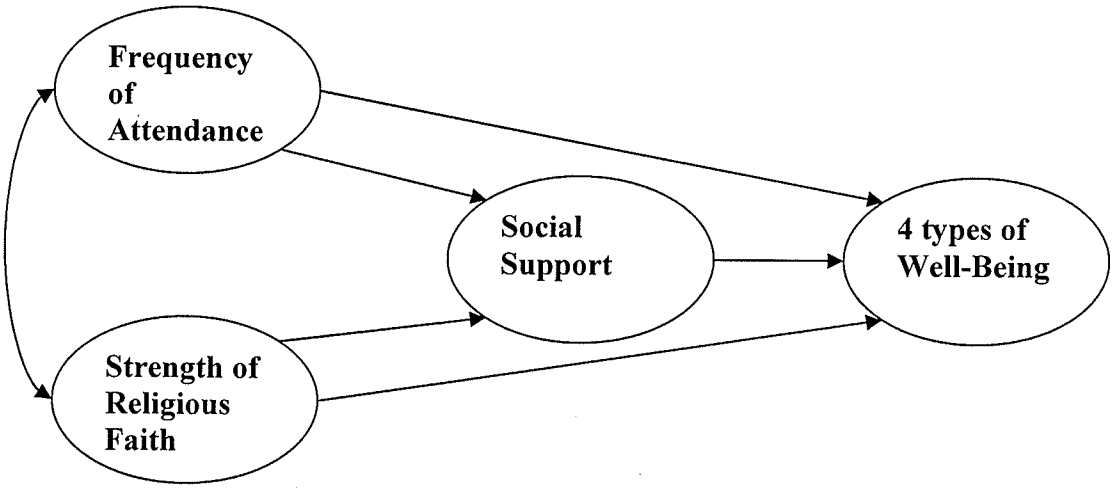
being. While it is necessary to know the proposed pathways between religion and mental health, simply claiming that the relationship between strength of religious faith, frequency of service attendance, and well-being will be indirectly affected by social support and ways of coping is insufficient. How, specifically, will the relationship be affected?

There are two sides of the equation that provides a connection between religion, social support, and mental health: at the front end, religion is associated with higher levels of social support and on the other end, social support is associated with good mental health. Religious involvement fosters individual social support and having this social support contributes to better overall mental health. It is hypothesized, then, that 3) *strength of religious faith and frequency of religious service attendance will positively influence respondents' level of social support* and that 4) *social support will demonstrate a positive relationship with all four indicators of well-being.*

Likewise, the relationship among religion, ways of coping, and mental health functions in two parts: on the one hand, positive coping techniques enable individuals to make sense of their life stresses and better deal with their problems and, on the other hand, good stress management is beneficial to mental health. There is evidence supporting the existence of different coping styles (Folkman and Lazarus 1980) and these styles are correlated with more or less positive indicators of mental health (i.e., Carver et al. 1989). Religion is found to have a positive effect on subjective well-being through the mediating effects of meaning-making coping and therefore, it is also hypothesized that 5) *strength of religious faith and frequency of religious service attendance will positively influence respondents' ways of coping* and 6) *ways of coping will positively influence all*

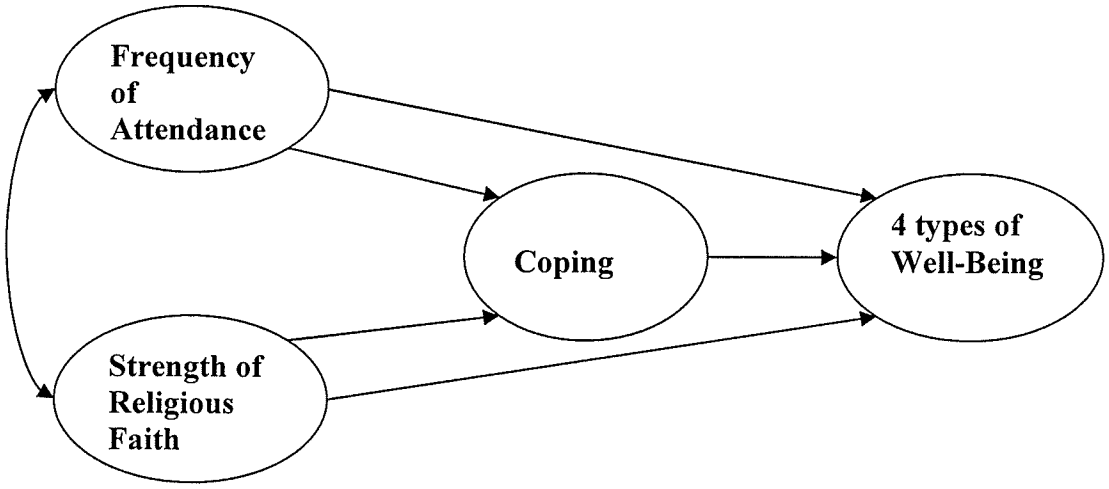
four types of well-being. See Appendix A for a summary of all proposed hypotheses illustrated above in italics.

Figure 1: Religion and Well-Being Mediated by Social Support[6]



[6] Three separate regressions were run using each well-being measure as the dependent variable in addition to a fourth regression that combined all three types of well-being into one composite dependent variable measuring overall well-being. Because there are two models, one dealing with each mediator, there are 8 models total.

Figure 2: Religion and Well-Being Mediated by Coping



3.2 Sample

The analysis for this project is performed on data collected from the 2008 Mental Health and Well-Being cross-sectional survey; students enrolled in Introduction to Sociology and Research Methods courses at the University of Manitoba constitute the sample. A total of 17 Introductory to Sociology (SOC 1200) classes were surveyed. Total enrolment for all Introductory to Sociology classes in 2008 was 1, 487. In addition, three Research Methods classes (SOC 2290) were surveyed with a total enrolment of 97. The classes were selected based on convenience, making the sample a non-probability one.

Due to the use of human participants, approval from the university ethics review board was attained. A consent form was provided and explained in detail before

respondents were administered the survey. Two copies of the form were provided; one was to remain with the respondent for their records and the other was collected by the researchers. It was made clear that participation in the study was entirely voluntary and that the students' grades would in no way be affected by either choosing or refusing to participate.

A description of the questions was included and it was explained that some of them would be quite personal in nature (i.e., those dealing with suicide and substance use). Respondents were reassured that the purpose of the study was to gauge aggregate patterns and that the researchers were not interested in individual answers. In the hopes of receiving reliable and anonymous responses, it was explained that students' identities would remain confidential so answers could not be linked to anyone in particular. As a final safeguard, the respondents were provided with the name and phone number of the Klinic Community Health Centre's crisis line, should any stressful emotions arise after completing the questionnaire.

The Mental Health and Well-Being survey was administered in September and October of 2008. The surveys were administered by the principal researcher, Dr. Tracey Peter, and one graduate student. Students completed the questionnaire in their classrooms during one of their regularly scheduled class periods of approximately 50 minutes. A total usable sample of 1, 245 was obtained from the 1, 584 students available, amounting to a 78.60% response rate. The cases consist of 771 females (62.40%) and 465 males (37.60%) between the ages of 17-45[7]. With regard to the overall age distribution, 90% of the respondents are between the ages of 18-24, with 71.80% falling in the 18-20 range[8].

[7] Total undergraduate enrolment for the University of Manitoba was 22,544 in the fall of 2008; of this total, females constituted 56.30% (12,689) and the remaining 43.70% were male (9,855) (Office of Institutional

The *Mental Health and Well-Being* survey asked respondents a comprehensive range of questions. The instrument included measures related to mental functioning, including scales that assess depression, positive and negative affect, suicide ideation, childhood trauma, and self-esteem, among others. In order to test the hypotheses derived for the present study, variables pertaining to religion, social support, coping techniques, and psychological, social, and emotional well-being were extracted from the dataset. These measures, along with recodes, indices, the computation of variables into composite measures, and the analysis technique are discussed in detail below.

3.3 Endogenous Variables

The main dependent/endogenous variables in the project demonstrate the three dimensional conceptualization of "well-being" advocated by Keyes (2002) that includes psychological, social, and emotional well-being. The advantage of such a conception is that it is comprehensive. Individuals cannot simply function well on one dimension and be said to be mentally healthy. Mental health exists along a continuum (Keyes 2002); individuals on the highest end are said to be "flourishing" while those at the lowest end are said to be "languishing". Most people will fall somewhere in the middle on this continuum, having moderate levels of psychological, social, and emotional well-being. This innovative tripartite conception and operationalization of well-being is the

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Analysis 2008a). In comparison to these overall institutional statistics, it is expected that females will outnumber males in a representative sample.

[8]One of the goals of this study is to investigate the influence of religion on the well-being of a younger population so it is important that the sample be largely comprised of "young adults". Of all undergraduates enrolled in the fall of 2008, 73.80% were between the ages of 18-24 and 37.60% were between the ages of 18 and 20 (Office of Institutional Analysis 2008b), however, because the sample consists mainly of students enrolled in first year university, "representativeness" must be judged against these particular demographics.

dependent variable for the proposed project. If measures of religion and religiosity truly demonstrate a salutary effect on mental health, the established relationship between religion and disorder related variables will hold for these positive, comprehensive variables.

3.3.1 Psychological well-being. Psychological well-being, like well-being in general, is a multifaceted construct. In this study it will be measured by the Ryff (1989) scale of psychological well-being. This instrument consists of 6 distinct, yet related dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Ryff and Singer (1996: 17) describe the nature of these six dimensions: those who score high on *self-acceptance* are characterized by a positive self-concept, acknowledging both the good and bad aspects of themselves as individuals. A low scorer has a negative self-image, has negative feelings about their past life, and wishes to change certain personal characteristics. Those who score high on *positive relations with others* enjoy "warm, satisfying, trusting relationships with others" (Ryff and Singer 1996:17), they are concerned with others' welfare, they are able to display empathy, affection, and intimacy, and they understand the dynamics of social relationships in general. Low scorers have few close relationships, find the aforementioned emotions difficult, have relatively little concern for other people's welfare, and experience frustration in their personal relationships. *Autonomous* people are "self-determined and independent" (Ryff and Singer 1996:17), are able to resist social pressure to think and behave in particular ways, self-regulate, and have their own individual standards of value. Less autonomous individuals are more concerned with the "expectations and evaluations of others" (Ryff and Singer 1996:17), make decisions

based on outside judgments, and succumb to social pressures to conform. Someone who has *mastered their environment* "controls [a] complex array of external activities" (Ryff and Singer 1996:17), capitalizes on presented opportunities, and can shape their surroundings to satisfy their needs. Someone who scores relatively low on environmental mastery, conversely, would find it difficult to manage their lives, seize opportunities, and influence their immediate surroundings culminating in a general lack of control. Individuals with strong *purpose in life* have and pursue goals, feel both their past and present life have meaning, and hold beliefs that give their life purpose. Those who score low on this dimension lack meaning, goals, aims, and have very little direction in their life. Finally, those people who score high on *personal growth* are continually developing themselves, recognizing their potential, welcoming new experiences, and change in ways that reflect an increased sense of self-awareness and effectiveness. Individuals with low personal growth remain comparably idle, find life uninteresting, and lack the confidence that they can effect changes of behaviour and attitude.

The 24 psychological well-being items are rated on a 7-point Likert scale where 0=strongly disagree and 6=strongly agree; items are summed and scores range from 0 to 132 with higher scores indicating a higher level of psychological well-being. Items with an (r) denote reverse coding. The items are as follows[9]:

[9] The two items with an asterisk were removed from the computed psychological well-being variable due to survey error. These items were inadvertently moved to the top of the subsequent questionnaire pages and were disproportionately left unanswered. The exclusion enables the retention of more cases for the final sample size and reduces the final maximum range of possible scores from 144 to 132.

Self-Acceptance:

1. My attitude about myself is probably not as positive as most people feel about themselves (r).
2. When I look at the story of my life, I am pleased with how things have turned out.
3. I like most parts of my personality*.
4. I feel like many of the people I know have gotten more out of life than I have (r).

Personal Growth:

5. I think it is important to have new experiences that challenge how you think about yourself and the world.
6. I am not interested in activities that will expand my horizons (r).
7. When I think about it, I have not really improved much as a person over the years (r).
8. For me, life has been a continuous process of learning, changing, and growth*.

Autonomy:

9. It is difficult for me to voice my own opinions on controversial matters (r).
10. I judge myself by what I think is important, not by the values of what others think is important.
11. I tend to be influenced by people with strong opinions (r).
12. I tend to worry about what other people think of me (r).

Environmental Mastery:

13. I have been able to build a living environment and a lifestyle for myself that is much to my liking.
14. I am quite good at managing the many responsibilities of my daily life.
15. I do not fit in very well with the majority of people around me (r).
16. The demands of everyday life often get me down (r).

Positive Relations with Others:

17. I enjoy personal and mutual conversations with family members and friends.
18. Maintaining close relationships has been difficult and frustrating for me (r).
19. I have not experienced many warm and trusting relationships with others (r).
20. I know that I can trust my friends, and they know they can trust me.

Purpose in Life:

21. I live life one day at a time and do not really think about the future (r).
22. My daily activities often seem trivial and unimportant to me (r).
23. I enjoy making plans for the future and working to make them a reality.
24. I have a sense of direction and purpose in life.

The psychological well-being scale is internally consistent[10] (Cronbach's alpha=0.82) and the sample respondents are found to have moderate levels of psychological well-being (mean=88.44; see table 1 for univariate descriptive statistics).

3.3.2 Social well-being. Social well-being is assessed using a comprehensive five dimension scale (Keyes 1998).The five components include social integration, social acceptance, social contribution, social coherence, and social actualization. *Socially integrated* individuals will feel they have things in common with those in their social world and feel connected to both their community and society. *Socially accepting* people trust others, see others as kind, and generally hold favorable views of humanity. People who *contribute socially* believe they are an important, valued, and effective member of society. *Social coherence* refers to the extent that people desire to know about the world; they both care about the world they live in and can understand the way things work within it. Finally, *social actualization* refers to people's "evaluation of the potential and trajectory of society"; healthier people are more hopeful (Keyes 1998: 123).

Each of the five dimensions is measured by four items for a total of 20 items. The coding scheme is again a 7-point Likert where 0=strongly disagree and 6=strongly agree. The items are summed and scores range from 0 to 120. Higher scores indicate the respondent is more socially healthy. The items are as follows and again, reverse coded items are indicated by (r).

Social Integration:

1. I don't feel I belong to anything I would call a community (r).

[10] It is generally accepted that a Cronbach's alpha value of 0.70 or higher reflects good internal consistency, depending on the number of items (Cortina 1993).

2. I feel close to other people in my community.
3. If I had something to say, I do not think my community would take me seriously (r).
4. I see my community as a source of comfort.

Social Coherence:

5. The world is too complex for me (r).
6. Most cultures are so strange that I cannot understand them (r).
7. I think it is worthwhile to understand the world we live in.
8. I cannot make sense of what is going on in the world (r).

Social Acceptance:

9. I believe that people are self-centered (r).
10. I feel that people are not trustworthy (r).
11. I believe that people are kind.
12. I think that people are unreliable (r).

Social Actualization:

13. I do not think social institutions like law and government make my life better (r).
14. Society is not improving for people like me (r).
15. I think the world is becoming a better place for everyone.
16. I see society as continually evolving and improving

Social Contribution:

17. My behaviour has some impact on other people in my community.
18. I do not have the time or energy to give anything to my community (r).
19. My daily activities do not produce anything worthwhile for my community (r).
20. I think I have something valuable to give to society.

The social well-being scale has a Cronbach's alpha of 0.85, indicating good internal consistency and respondents are found to have moderate levels of social well-being (mean=71.75).

3.3.3 Emotional well-being. The final dimension of well-being is emotional well-being, which has three necessary components. The first component is the presence of positive affect, the second is the absence of negative affect, and the third is satisfaction with life (Keyes 2002). To be emotionally healthy, individuals must experience positive

emotional states, avoid experiencing negative emotional states, and also feel satisfied with their lives.

Positive and negative affect are measured by the Positive and Negative Affect Scale (PANAS) (Watson et al. 1988). Below, positive items are noted (P) and negative items are noted (N). The PANAS is a 20-item scale that asks respondents how often in the past 30 days (0=none of the time, 1=rarely, 2=some of the time, 3=most of the time, 4=all of the time) they have felt the following:

1. Interested-P
2. Distressed-N
3. Excited-P
4. Upset-N
5. Strong-P
6. Guilty-N
7. Scared-N
8. Hostile-N
9. Enthusiastic-P
10. Proud-P
11. Irritable-N
12. Alert-P
13. Ashamed-N
14. Inspired-P
15. Nervous-N
16. Determined-P
17. Attentive-P
18. Jittery-N
19. Active-P
20. Afraid-N

The 20-items are summed to arrive at a total and scores range from 0 to 80. Higher scores indicate a more positive affect as the negative items (those marked N) are reverse coded. The PANAS has good internal consistency (alpha=0.84). Respondents have a mean score of 50.36 on the PANAS, indicating they experience a moderate level of positive affect.

Satisfaction with life is measured by the Satisfaction with Life Scale (Diener et al. 1985). The measure consists of five items and is coded on a 7-point Likert scale where 0=strongly disagree and 6=strongly agree. Items are summed netting scores that range from 0 to 30, where higher scores indicate more satisfaction with life.

1. In most ways my life is close to my ideal.
2. If I could live my life over, I would change almost nothing.
3. So far I have gotten the important things I want in my life.
4. I am satisfied with my life.
5. The conditions of my life are excellent.

The Cronbach's alpha value for the satisfaction scale is 0.85 and the mean score for this variable is 19.26, indicating respondents are moderately satisfied with their lives. The scores on affect and satisfaction with life are added together to form individual scores on emotional well-being where higher scores will indicate more emotional health and lower scores will reflect comparably less emotional health[11]. Scores for the computed emotional well-being scale range from 0 to 110. Respondents again have moderate levels of emotional well-being (mean=69.82).

3.3.4 Well-Being. In addition to the three different well-being measures, a fourth, overall well-being measure was also created in the interest of ascertaining the impact of the independent variables on well-being in general[12]. "Well-being" was computed by combining psychological, social, and emotional well-being. Scores on the well-being measure range from 0 to 362, with higher scores indicating increased overall well-being.

[11] Because the PANAS scale is measured on a 5-point Likert and the Satisfaction with Life scale is measured on a 7-point Likert, the individual scores were also transformed into standardized z-scores and combined into a standardized emotional well-being measure. As there was virtually no difference in the end results, the un-standardized emotional well-being scores are used in the analyses.

[12] Keyes (2002; 2005; 2007) argues that well-being consists of these three distinct parts, so it stands to reason that they are to also be considered as a whole.

Respondents have a mean score of 230.57 on well-being, indicating moderate levels (consistent with the three separate well-being measures)[13].

3.3.5 Social support. The proposed mediating/endogenous variables are 'social support' and 'ways of coping'. Social support is assessed using the Sense of Support Scale (SSS) (Dolbier and Steinhardt 2000). The SSS has 20 items and is measured on the same 7-point Likert scale (0=strongly disagree, 6=strongly agree). Items with (r) indicate reverse coding. The items include:

1. My friends and family feel comfortable asking me for help.
2. I take time to visit my neighbours.
3. I look for opportunities to help and support others.
4. I seldom invite others to join me in my social and/or recreational activities (r).
5. I have meaningful conversations with my parents and/or siblings.
6. There is no one that shares my beliefs and attitudes (r).
7. I have friendships that are mutually fulfilling.
8. I have a mentor(s) in my life I can go to for support/advice.
9. There is no one I can trust to help solve my problems (r).
10. I feel well supported by my friends and/or family.
11. I find it difficult to make new friends (r).
12. If a crisis arose in my life, I would have the support I need from family and/or friends.
13. I have a close friend(s) whom I feel comfortable sharing deeply about myself.
14. I have friends from work and/or school that I see socially (e.g., movie, dinner, sports, etc.).
15. There is no one I can talk to when making important decisions in my life (r).
16. I belong to a club (e.g., sports, hobbies, support group, special interests, or volunteer group).
17. There is at least one person I feel a strong emotional tie with.
18. I seldom get invited to do things with others (r).
19. I wish I had more people in my life that enjoy the same interests and activities as I do (r).
20. I make an effort to keep in touch with friends.

The scale has a Cronbach's alpha of 0.87, indicating good internal consistency. A total score of 0 on the Sense of Support Scale indicates the respondent has no social support,

[13] Reliability analysis was not run on this particular variable as the number of items (67) would render the coefficient virtually useless.

whereas a possible top score of 120 indicates they have optimal social support in their lives. Respondents in this sample have moderate levels of social support (mean=87.31).

3.3.6 Ways of coping. Ways of Coping is measured by a portion of the 66-item, 1985 revised version of the Ways of Coping Checklist (Folkman and Lazarus 1980)[14]. The scale assesses both problem-focused and emotion-focused coping techniques. Problem-focused techniques involve cognitive and behavioural strategies aimed at the source of the problem. Emotion-focused techniques include cognitive and behavioural strategies aimed at managing emotional distress or discomfort (Folkman and Lazarus 1980). In particular, there are 8 sub-scales that correspond to specific coping orientations: problem-focused coping, wishful thinking, detachment, seeking social support, focusing on the positive, self-blame, tension reduction, and keep[ing] to self (Correspondence from S. Folkman).

The Mental Health and Well-Being Survey only included 42 of the 66 items, but did capture all 8 sub-scales and the 42 items proved internally consistent (alpha=0.80). Respondents were asked to indicate how often they utilized the indicated method of coping; 0=never, 1=rarely, 2=sometimes, 3=often, and 4=always. Specifically, the question read, "When faced with a stressful situation I usually":

1. Problem-Focused Coping (more adaptive)

b) Try to analyze the problem to understand it better.
f) Make a plan of action and follow it.
j) Know what has to be done, so I double my efforts to make things work.
l) Come up with a couple of different solutions to the problem.

[14] 42 of the 66 items were used to create the coping measure. These 42 items reflect an empirically constructed scale (based on factor loadings) used for a study of college undergraduates (Folkman and Lazarus 1985). Given that the sample for this study is also comprised of college undergraduates, the 42 statistically valid items were chosen.

n) Try to see things from the other person's point of view.
p) Draw on my past experiences.
r) Go over in my mind what I will say or do.
dd) Stand my ground and fight for what I want.
hh) Change something so things turn out all right.
ii) Try not to act too hastily.
oo) Try to keep my feelings from interfering with other things too much.

2. Wishful Thinking (less adaptive)

d) Wish that the situation will go away or somehow be over with.
t) Daydream or imagine a better time or place.
bb) Have fantasies or wishes about how things may turn out.
ff) Hope that a miracle will happen.
gg) Wish that I could change what is happening or how I feel.

3. Detachment (less adaptive)

g) Feel that time will make a difference - the only thing to do is wait.
o) Go on as if nothing is happening.
s) Try to forget the whole thing.
cc) Go along with fate.
jj) Accept it since nothing can be done.
ll) Wait to see what will happen before doing anything.

4. Seeking Social Support (more adaptive)

c) Talk to someone about how I am feeling.
e) Accept sympathy and understanding from someone.
i) Let my feelings out somehow.
m) Ask a relative or friend I respect for advice.
q) Pray.
w) Talk to someone to find out more about the situation.
kk) Talk to someone who can do something concrete about the problem.

5. Focusing on the Positive (more adaptive)

a) Change or grow as a person in a good way.
h) Try to look on the bright side of things.
y) Rediscover what is important in life.
mm) Become inspired to do something creative.

6. Self-Blame (less adaptive)

k) Realize that I brought the problem on myself.
v) Make a promise to myself that things will be different next time.

x) Criticize or lecture myself.

7. Tension Reduction (less adaptive)

aa) Get away from it for a while.
nn) Try to make myself feel better by eating, drinking, using drugs or medications, etc.
pp) Jog or exercise.

8. Keep to Self (less adaptive)

u) Avoid being with people in general.
z) Try to keep my feelings to myself.
ee) Keep others from knowing how bad things are.

The responses are summed and scores range from 0 to 164 with higher scores indicating more adaptive coping techniques. The items that correspond to less adaptive methods of coping are reverse coded so that higher scores on this measure indicate the use of more positive or adaptive coping techniques in general[15]. Sample respondents tend to cope in largely positive ways; the mean score on the coping scale is 90.49.

3.4 Exogenous Variables

The independent/exogenous variables in the project are strength of religious faith and frequency of religious attendance. Strength of religious faith is a latent construct measured by the Santa Clara Strength of Religious Faith questionnaire (SCSORF) (Plante and Boccaccini 1997). The SCSORF is a 10-item, empirically valid and reliable, instrument designed specifically to be used in mental health research[16]. It is measured using a 7-point Likert scale (0=strongly disagree, 1=moderately disagree, 2=slightly disagree, 3=neither agree nor disagree, 4=slightly agree, 5=moderately agree, and

[15] Item Q "Pray" was removed from the Ways of Coping scale as the Santa Clara Strength of Religious Faith Questionnaire also contains an item related to frequency of prayer and more appropriately fits that specific measure.
[16] The suitability of the scale is reflected by a very high alpha coefficient of 0.98.

6=strongly agree). The advantage of the included items is that they capture both behaviours and cognitions, which is congruent with the multi-dimensional conceptualization of religion. The items are as follows:

1. My religious faith is extremely important to me.
2. I look to my faith as providing meaning and purpose in my life.
3. I consider myself active in my place of worship.
4. My faith has an impact on many of my decisions.
5. I enjoy being around people who share my faith.
6. I pray daily.
7. I look to my faith as a source of inspiration.
8. My faith is an important part of who I am as a person.
9. My relationship with God is extremely important to me.
10. I look to my faith as a source of comfort.

Responses are combined to produce a composite index. Respondents score anywhere from 0, indicating a very weak/non-existent strength of religious faith, to 60, indicating they have a very strong strength of religious faith. Respondents scored 25.39 on the private measure of religious commitment, indicating they have low to moderate strength of faith, on average.

3.4.1 Frequency of religious attendance is measured by one item that asks how often respondents attend religious services. The response categories are: 1) never; 2) a few times a year; 3) monthly; 4) weekly; and 5) more than once a week. Higher scores on this variable indicate more frequent attendance. Univariate analyses demonstrate that the majority of respondents either reported attending religious services a few times a year (37.40%, N=377) or never attending religious services (36.30%, N=366).

Because there is contention surrounding the relative importance of public versus private religious participation, it seems rather important for research to include both. Public indicators refer to such things as frequency of service attendance, activity participation, and prayer. Private indicators, conversely, refer to ideology (belief salience)

and personal devotion (intrinsic religious orientation and emotional attachment to God) (Hackney and Sanders 2003). This study uses both strength of religious faith, a measure of ideology that captures the more private nature of religion, and also includes the public measure of service attendance in the interest of uncovering any significant differences between private and public indicators for respondents' well-being. Moreover, the inclusion of the attendance measure is crucial, given that frequency of attendance may facilitate the relationship between religion and social support.

Table 1: Univariate Descriptive Statistics of Continuous Measures

	Mean	Median	Std. Deviation	Minimum	Maximum
Strength of Religious Faith	25.39	27.00	19.77	0	60
Social Support	87.31	90.00	16.72	25	120
Coping	90.49	91.00	13.01	40	137
Psychological Well-Being	88.44	89.00	17.20	29	131
Social Well-Being	71.75	72.00	14.55	25	117
PANAS	50.36	51.00	8.10	23	73
Satisfaction with Life	19.26	20.00	5.96	0	30
Emotional Well-Being	69.72	71.00	12.05	24	103
Well-Being	230.57	233.00	38.09	105	345

3.5 Analytic Procedures

In addition to relevant bivariate analyses, the multivariate analytic procedure consists of a path analysis. Path analysis consists of a series of multiple regressions that produce path coefficients describing the strength and direction of the relationships between variables.

The path coefficients reveal the degree to which each independent variable impacts the dependent variables in the model, independent of all the other variables. The indirect paths are determined through the multiplication of the corresponding variables' path coefficients. The R squared values in the model reveal the amount of variance in the dependent variables that can be explained by the independent variables. The amount of *un*explained variance that remains indicates the goodness of fit of the path model(s) in accounting for the variance of the dependent variables. The technique allows the researcher to test both direct and indirect relationships and discuss the hypothesized temporal order of the relationships; that religious commitment positively contributes to the respondents' level of social support and influences the coping strategies they utilize which, in turn, enhances their individual well-being.

Given that the variables chosen for analysis are predominately latent constructs with numerous sub-latent dimensions, confirmatory factor analysis (CFA) and structural equation modeling (SEM) might have also been chosen. A CFA would have revealed whether or not the theoretical structure of the variables could be replicated in the sample data. For instance, that social well-being has five distinct components and that the 20 items correspond with their respective components, based on factor loadings. An SEM could further reveal both the direct and indirect relationships between the constructs[17].

While not as statistically strong, path analysis is the most appropriate analytic technique for this particular study for several reasons: (1) the scales used are all psychometrically sound; (2) there is a lack of theoretical reasoning for altering the proposed relationships between and amongst the individual items and components; (3)

[17] SEM is also a more statistically robust technique, compared to path analysis, as it can account for measurement error (Tabachnick and Fidell 2007).

the study is exploratory in nature; and (4) previous studies of mental health and religion utilize similar techniques. All of the composite scales used in the analysis are valid and reliable, established scales. There is neither an empirical nor theoretical reason to question the structure of the scales as they have been developed. The lack of theoretical reasoning is especially important given that, in SEM analyses, it is often necessary to create and/or eliminate relationships between items and constructs in order to identify the measurement model and achieve statistically acceptable fit indices (Schumacker and Lomax 1996). The hypothesized direct and indirect relationships are strongly supported by relevant literature and altering them violates the fundamental assumption that statistical models are informed by theory. Further, the goal of this particular study is to investigate how the concepts relate to one another in a sample of young adults and thus, is exploratory in nature. The issue of religion's impact on the well-being of young adults has not been given much attention so it is necessary to first understand whether or not any correlations exist at all. If it can be determined that specific relationships do exist, the next step it to examine these in depth and future research on this topic may employ CFA and SEM to achieve this end. Finally, many previous studies examining the association between religion, mental health, and various mediators use regression analyses as their main analytic procedure. In their study of religious involvement (frequency of religious service attendance), social ties, and social support, Ellison and George (1994) use both ordinary least squares regression (OLS) and logistic regression; Ellison et al. (2001) use OLS regression to investigate religious involvement (including frequency of service attendance, frequency of prayer, and other religious beliefs), stress, and psychological

well-being (see also McCullough and Larson 1999); and Park (2005) employed path analysis to examine the relationship between religion, coping, and subjective well-being.

Given that path analysis is merely an extension of simple multiple regression all of the relevant assumptions of regression analysis, including absence of outliers, normality, linearity, homoscedasticity, multi-collinearity, must be met in order to proceed. Pairwise deletion of cases was used[18] [19] after Little's MCAR test (Hill 1997) established that the missing cases were missing completely at random[20]. Two multivariate outliers were identified through Mahalanobis distance which measures the distance of a case from the multivariate mean (centroid). These cases had unusual combinations of scores on the variables of interest and analyses were conducted excluding them. The composite scales in the model are normally distributed as indicated by acceptable skewness and kurtosis values[21], in addition to the inspection of histograms. All of the exogenous and endogenous independent variables are linearly related to the endogenous dependent variables and display homoscedasticity.[22] Finally, diagnostic tests revealed no issues with multi-collinearity among the independent measures.[23]

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[18] The univariate analysis of the psychological well-being scale showed that two of the items; "I like most parts of my personality" and "For me, life has been a continuous process of learning, changing, and growth", had an unusually high number of missing cases (6.70% and 2.90% respectively) compared to the other items in the scale (all of the others had 0.90% missing or less). Due to survey error, the two items were inadvertently moved to the top of subsequent pages and were left disproportionately unanswered. As such, these items were removed and the scale was re-computed with 23 items.

[19] Pairwise deletion of cases allowed the retention of the maximum number of cases; listwise deletion generated a total sample size of 868, which is only 70% of the sample.

[20] The chi-square value is 183.77 with 221 degrees of freedom and a significance value of 0.97. Insignificant values on this test indicate that there is no identifiable pattern among the missing cases (Hill 1997).

[21] Normal or near normal distributions have skewness and kurtosis values under 2.

[22] It was necessary to run residual plots for strength of religious faith to ascertain linearity. Strength of religious faith was found to have a linear relationship with all three measures of well-being.

[23] Variables must have tolerance values close to 1 and Variance Inflation Factor (VIF) scores under 2 in order to rule out multi-collinearity. Tolerance scores were close to 1 for social support and coping (0.80) and the VIFs were just over 1 (1.26 for both). Tolerance scores for the religious commitment measures were 0.50 and the VIFs were just barely over 2 (2.10 for both); given that some correlation is expected between the public and private measure of religious commitment, these values are not a cause for concern.

The chapter has outlined the empirical expectations of the study, described the characteristics of the sample and measures (including univariate results), and presented the analysis technique. Detailed bivariate and multivariate results will be presented in the next chapter.

CHAPTER FOUR: RESULTS

The following chapter presents the results of the bivariate analyses that describe some of the socio-demographic differences in religion and well-being in the sample and the multivariate regression results of the path analyses.

4.1 Bivariate Analyses

Several bivariate analyses were conducted to uncover any demographic differences in sex, relationship status, immigrant status[24], and ethnic identity with respect to the variables of interest (see Appendix B for variable coding schemes). The results reveal that females in the sample have significantly higher levels of social support; they tend to cope in more positive ways; they enjoy higher psychological and social well-being and have greater amounts of overall well-being, in general compared to males (see tables 2 and 3 for bivariate mean differences). Those individuals who are in a relationship cope in significantly more positive ways and also have higher levels of psychological well-being compared to single people. Single individuals are found to have significantly stronger religious faith. Respondents who were born in Canada (non-immigrants) have more social support and higher psychological, emotional, and overall well-being, compared to those respondents born outside of Canada. Immigrant respondents are found to have both a stronger sense of religious faith and attend religious services more frequently than non-immigrants. The differences in ethnic status are limited to Caucasian/White and Other Minority respondents[25]. Caucasian/White individuals are found to have significantly higher levels of social support and psychological and emotional well-being, while other

[24] Immigrant status is crudely defined as whether or not the respondent was born in Canada and, as such, does not take into account how long the individual has resided in Canada.
[25] The ethnic status variable was trichotomized due to low cell counts.

minorities have the lowest levels. However, other minorities are found to have significantly higher levels of both strength of religious faith and service attendance. Interestingly, the Aboriginal/First Nations/Metis/Inuit group is found to have the highest level of overall well-being. To summarize, females, single persons, other minorities, and those born outside of Canada tend to be more religious while females, people currently in a relationship, those of Caucasian/White ethnicity, and Canadian born respondents tend to have higher levels of well-being.

Table 2: Bivariate Mean Differences-Independent Samples T-test

Variables	**Female Mean Score**	**Male Mean Score**	**Not in a Relationship Mean Score**	**In a Relationship Mean Score**	**Immigrant Mean Score**	**Non-Immigrant Mean Score**
Frequency of Religious Service Attendance	2.13	2.04	2.14	2.05	2.67***	2.01***
N=	**640**	**367**	**527**	**472**	**134**	**847**
Strength of Religious Faith	26.01	24.36	26.77*	24.03*	36.99***	23.61***
N=	**640**	**367**	**527**	**472**	**134**	**847**
Social Support	89.86***	82.84***	86.70	87.99	81.96***	88.13***
N=	**640**	**367**	**527**	**472**	**134**	**874**
Coping	91.21*	89.24*	89.34**	91.72**	90.09	90.55
N=	**640**	**367**	**527**	**472**	**134**	**874**
Psychological Well-Being	90.08***	85.57***	87.08**	89.97**	84.90*	88.99*
N=	**618**	**361**	**514**	**458**	**133**	**847**
Social Well-Being	73.89**	69.77**	71.81	71.74	70.67	71.91
N=	**599**	**346**	**492**	**445**	**123**	**823**
Emotional Well-Being	69.21	70.62	69.64	69.95	67.51*	70.06*
N=	**601**	**342**	**488**	**448**	**124**	**820**
Well-Being	232.89*	226.48*	229.23	232.08	223.55*	231.64*
N=	**548**	**318**	**446**	**414**	**115**	**752**

*=0.05, **=0.01, ***=0.001 (2-tailed)

Table 3: Bivariate Mean Differences-ANOVA

Variables	**Mean for Aboriginal/First Nations/Metis/Inuit Status**	**Mean for Other Minority Status**	**Mean for Caucasian/White Status**	**Critical F**
Frequency of Religious Service Attendance	2.16	2.47	1.94	22.699***
Strength of Religious Faith	27.80	34.24	21.51	44.881***
Social Support	87.31	83.44	88.89	10.662***
Coping	91.51	90.29	90.41	0.708
Psychological Well-Being	89.24	85.81	89.46	4.014*
Social Well-Being	72.14	70.30	72.32	1.799
Emotional Well-Being	71.31	67.32	70.56	7.211***
Well-Being	233.630	224.567	232.710	4.036*

*=0.05, **=0.01, ***=0.001

4.2 Multivariate Regression Analyses

It was hypothesized that the indicators of religious commitment (frequency of religious service attendance and strength of religious faith) would have positive direct effects on psychological, social, and emotional well-being (and by extension, positive direct effects on well-being in general). Furthermore, it was expected that the religious commitment variables would also positively influence well-being indirectly through the mediating variables; social support and coping. A series of standard multiple regressions were performed to establish the various pathways between the exogenous and endogenous independent variables and the four dependent well-being variables. In the interest of clarity, the results for each of the eight path models are presented separately.

4.2.1 Initial bivariate correlation. One of the fundamental initial expectations is that frequency of religious service attendance and strength of religious faith will be correlated with one another as they are both important indicators of an individual's religious commitment. Pearson's correlations show a very strong significant association between frequency of religious service attendance and strength of religious faith ($r=0.723$, $p=0.001$; see figure 3). The high correlation is understandable; as previously mentioned, it is reasonable to expect that individuals who attend religious services more frequently will also have a stronger sense of religious faith and vice versa, though this may not be an absolute certainty. It is important to note that while this association is quite strong, it does not approach levels that suggest singularity (Tabachnick and Fidell 2007). The absence of multi-collinearity amongst the variables coupled with the Pearson's correlation suggests that the decision to treat the two religious commitment variables as separate but correlated is correct; public and private aspects of religion exist as two distinct facets of a larger whole.

4.2.2 Model 1: psychological well-being mediated by social support. The first four models are those where social support is expected to mediate the relationship between the religious variables and well-being. Regression analyses reveal that the religious commitment variables account for virtually none of the variance in social support. Over 99% of the variance in social support remains[26] (see figure 3). Moreover, neither frequency of service attendance nor strength of religious faith has a significant

[26] The unexplained variance in the dependent variable (in this case, social support) is calculated by subtracting the R square value from 1 and taking the square root of the difference (i.e., Barron and Earls 1984).

association with social support, which is contrary to the research hypothesis. For this sample, it is apparent that respondents are not acquiring their social support via religious commitment, public or private[28].

The analyses for model 1 indicate that 23.5% of the variance in psychological well-being is explained by service attendance, strength of faith, and social support. Of the religious variables, only the private indicator of religious commitment (strength of religious faith) has a significant positive influence on psychological well-being (β= 0.093, p=0.01; see table 4). Those individuals with a stronger intrinsic sense of faith enjoy significantly higher levels of psychological well-being compared to their less privately faithful counterparts. Of all the potential pathways, the direct effect of strength of religious faith exerts the strongest positive effect on psychological well-being[29]. This result is understandable, given that strength of faith has no significant association with social support. The only other significant direct effect in model 1 is that between social support and psychological well-being (β=0.636, =0.001). In fact, social support exerts the greatest influence and is almost 7 times stronger than strength of religious faith[30]. Those individuals with higher levels of social support have significantly better psychological health than those with relatively low levels of social support.

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[28] Because the results of this particular regression are identical in each of the four social support models, they will only be reported here.

[29] Frequency of religious service attendance has no significant impact on psychological well-being directly. However, the indirect path between attendance, strength of faith, and psychological well-being is marginally stronger (0.07) than attendance's direct effect (-0.046). Where increased attendance contributes to a stronger sense of faith, psychological well-being is enhanced. For a complete list of the compound path coefficients see table 12.

[30] 0.636/0.093=6.8

Figure 3: Psychological Well-Being Mediated by Social Support

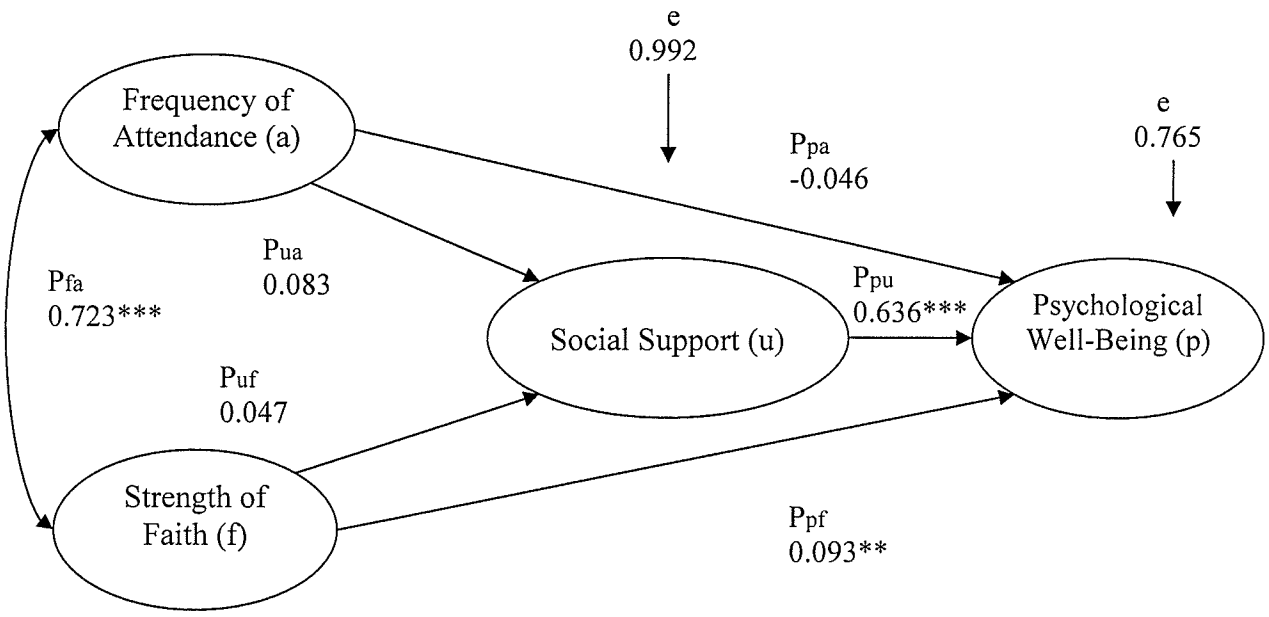


Table 4: Standardized Coefficients for Model 1

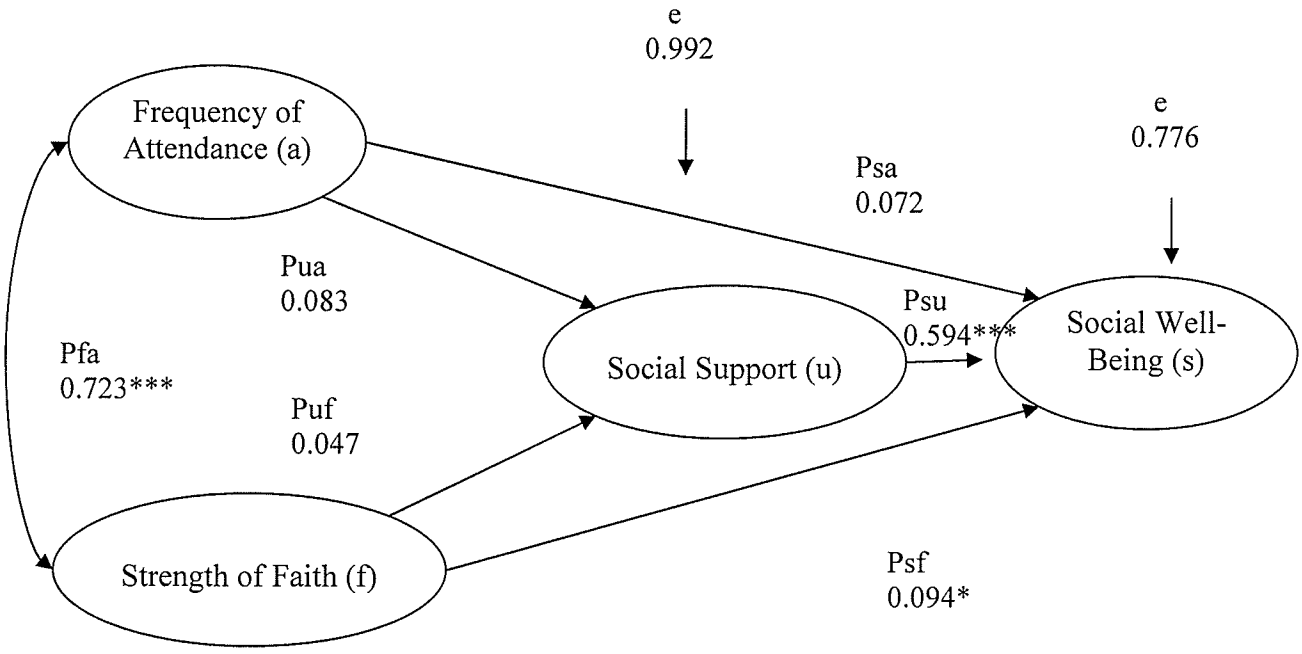
	Standardized Coefficients (beta weight)	**T Value**
First Regression: Psychological Well-Being (DV)		
Frequency of Attendance	-0.046	-1.304
Strength of Faith	0.093**	2.618
Social Support	0.636***	25.798
Second Regression: Social Support (DV)		
Frequency of Attendance	0.083	1.824
Strength of Faith	0.047	1.034

*=0.05, **=0.01, ***=0.001

4.2.3 Model 2: social well-being mediated by social support. The predictors in model 2 account for 22.4% of the variance in social well-being, which is comparable to model 1. Again, strength of religious faith is the only religious commitment variable

found to have a significant positive influence on social well-being (see figure 4; table 5). Those individuals with a stronger sense of faith have higher levels of social well-being (β=0.094; p=0.05), which partially supports the research hypothesis that the religious variables would positively impact all four types of well-being[31]. It is interesting to note that the public indicator of religious commitment has no significant impact on social well-being given the conceptual similarity between the two. One might expect that attending religious services more often would contribute to an individual's feelings of social integration, acceptance, coherence, contribution, and actualization. But then again, social support emerges as the most powerful predictor of social well-being (β=0.594, p=0.001) so the only feasible way for increased attendance to promote social well-being is if it also promotes social support. Logically, those respondents with comparably higher levels of social support are more socially healthy.

Figure 4: Social Well-Being Mediated by Social Support



[31] None of the indirect pathways from the religious variables to social well-being are stronger than the direct effects.

Table 5: Standardized Coefficients for Model 2

	Standardized Coefficients (beta weight)	**T Value**
Social Well-Being (DV)		
Frequency of Attendance	0.072	1.960
Strength of Faith	0.094*	2.563
Social Support	0.594***	23.329

*=0.05, **=0.01, ***=0.001

4.2.4 Model 3: emotional well-being mediated by social support. The predictors explain relatively less of the variance in emotional well-being than the previous models (14.3%) but the same pattern of findings continue; the only statistically significant religious effect is through the private measure of religious commitment (β=0.130, p=0.01; see figure 5 and table 6). Those people with a stronger sense of private faith have significantly higher levels of emotional health; they more frequently experience positive affective states and are more satisfied with their lives compared to individuals with a weaker sense of religious faith. The direct effect of strength of faith is also the strongest predictor; all of the indirect pathways yield weaker coefficients (see table 12). Yet again, social support has the strongest direct influence on well-being. Those with higher levels of social support have significantly better emotional well-being (β=0.500, p=0.001). As illustrated by the beta weights, social support has more than 3 times the impact on emotional health than strength of religious faith[32].

[32] 0.500/0.130=3.8

Figure 5: Emotional Well-Being Mediated by Social Support

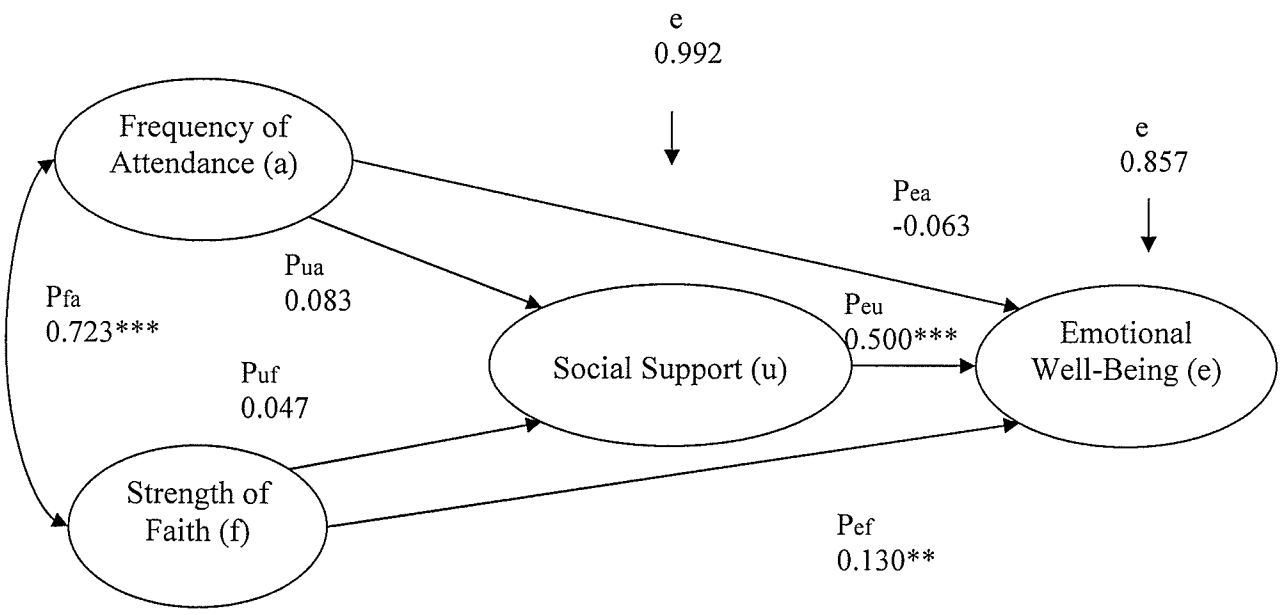


Table 6: Standardized Coefficients for Model 3

	Standardized Coefficients (beta weight)	**T Value**
Emotional Well-Being (DV)		
Frequency of Attendance	-0.063	-1.565
Strength of Faith	0.130**	3.203
Social Support	0.500***	17.753

*=0.05, **=0.01, ***=0.001

4.2.5 Model 4: overall well-being mediated by social support. The final social support model that tests the impact of the predictors on the composite indicator of well-being (psychological, social, and emotional) is the best model in terms of explained variance; frequency of religious service attendance, strength of faith, and social support account for 29.2% of the variance in overall well-being. This model also generates the strongest beta weights for both strength of religious faith and social support. It comes as no surprise that these two measures have the greatest influence on overall well-being,

given that the final model is simply an extension of the previous three. Strength of religious faith (β=0.139, p=0.001) and social support (β=0.682, p=0.001) both exert a significant positive influence on individual well-being, though clearly, social support remains the dominant predictor of well-being (see figure 6 and table 7). It is useful to note that although frequency of religious service attendance has no significant effect, the indirect path from attendance, through strength of faith to overall well-being generates a much stronger beta weight (β=0.100) than the direct effect of attendance (β= -0.016). It seems that where attendance does in fact contribute to a higher degree of private faith, well-being is enhanced.

Figure 6: Overall Well-Being Mediated by Social Support

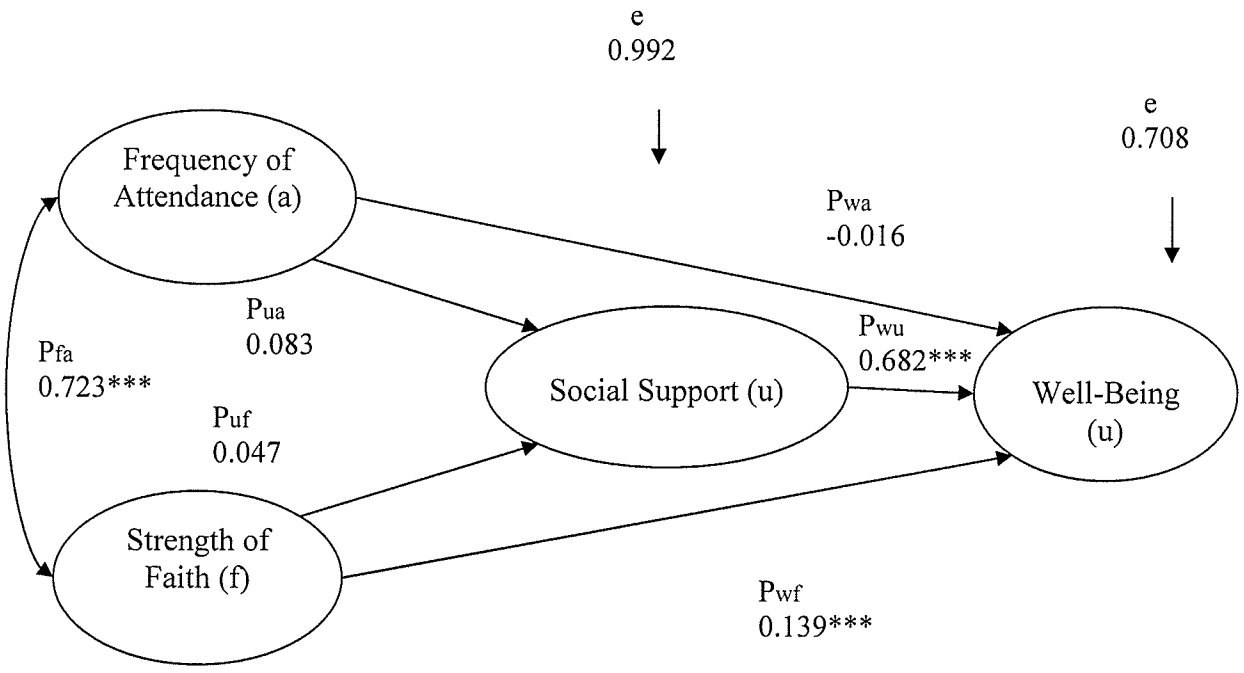


Table 7: Standardized Coefficients for Model 4

	Standardized Coefficients (beta weight)	**T Value**
Well-Being (DV)		
Frequency of Attendance	-0.016	-0.451
Strength of Faith	0.139***	3.967
Social Support	0.682***	28.074

*=0.05, **=0.01, ***=0.001

4.2.6 Summary of social support models. The results of the models mediated by social support are largely the same. The private measure of religious commitment is the only religious variable to exert a significant positive impact on well-being across each model. According to the analyses, strength of religious faith has the strongest beneficial effects for emotional well-being and overall well-being. Attendance has no significant bearing on well-being in this sample whatsoever. In terms of the mediator, having more social support consistently translates into better mental health. In the social support models, it is, by far, the strongest predictor of psychological, social, emotional, and overall well-being.

4.2.7 Model 5: psychological well-being mediated by coping. The last four models examine the impact that the religious variables have on well-being mediated by ways of coping. It was hypothesized that the religious commitment variables would positively influence coping and in turn, positive or adaptive coping techniques would enhance all four types of well-being. As with social support, the analyses demonstrate that frequency of religious service attendance and strength of religious faith explain virtually none of the variance in the manner in which respondents cope with life stress and strain. Only 0.7%

of coping is accounted for, leaving 99.3% unexplained (see figure 7). However individuals learn to cope using more or less adaptive methods, they are not being strongly influenced by their level of religious commitment. Unlike the social support models, strength of religious faith *does* have a significant impact on coping (β=0.131, p=0.01; see table 8). Those individuals with a stronger sense of faith tend to cope with adversity in positive ways compared to those with less internal faith.

Overall, the three predictors explain 20.8% of the variance in psychological well-being. While this is less than the comparable social support model, it is still a sufficient result. The remaining regression for model 5 reveals that neither of the religious commitment variables have any type of significant direct effect on psychological well-being when coping is also considered (β=0.019 and β=0.044) which indicates that, as with social support, the mediating variable coping is the decisive factor[33]. The method in which respondents cope is the strongest predictor of their psychological well-being (β=0.602, p=0.001), aside from social support. People that cope in more adaptive and effective ways (i.e., use problem focused coping efforts aimed at the source of the problem more often than emotion-focused efforts aimed at tension reduction) have higher levels of psychological well-being.

[33] Although frequency of attendance has no significant direct associations, consistent with the results of the social support models, attendance does exert a slightly stronger impact on psychological well-being via strength of religious faith (β=0.03 and β=0.06). Likewise, the indirect path from strength of religious faith to psychological well-being via coping results in a stronger coefficient (β=0.08) than the direct effect of strength of faith.

Figure 7: Psychological Well-Being Mediated by Coping

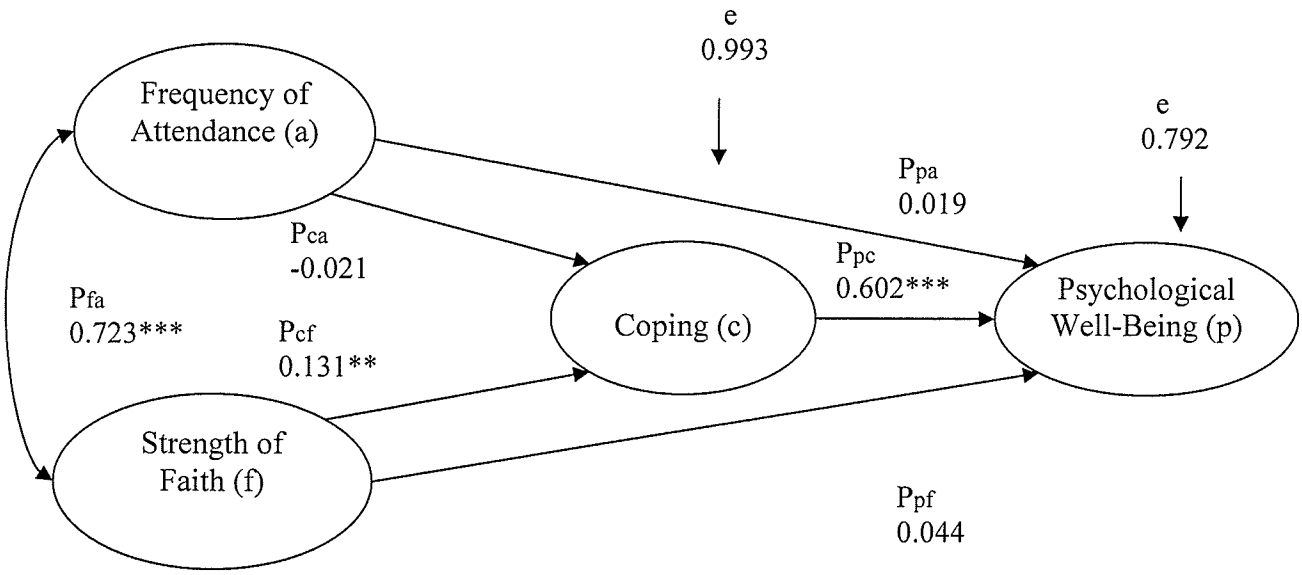


Table 8: Standardized Coefficients for Model 5

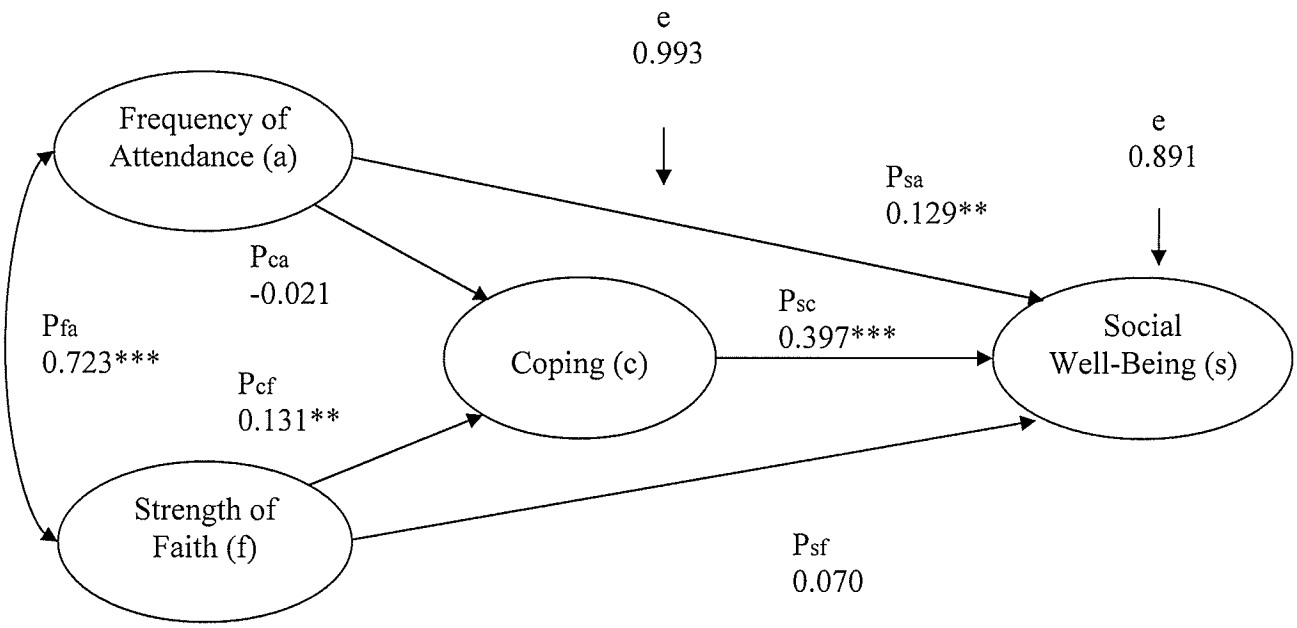
	Standardized Coefficients (beta weight)	**T Value**
First Regression: Psychological Well-Being (DV)		
Frequency of Attendance	0.019	0.514
Strength of Faith	0.044	1.184
Coping	0.602***	23.580
Second Regression: Coping (DV)		
Frequency of Attendance	-0.021	-0.459
Strength of Faith	0.131**	2.897

*=0.05, **=0.01, ***=0.001

4.2.8 Model 6: social well-being mediated by coping. Frequency of religious service attendance, strength of religious faith, and coping account for 10.9% of the variance in social well-being, which means the model has considerably less explanatory power than the psychological well-being model (see figure 8). Contrary to the social

well-being model mediated by social support, frequency of religious service attendance does have a significant positive effect on social well-being when coping is factored in (β=0.129, p=0.01; see table 9)[34]. As one would expect, attending religious services more frequently results in a significantly higher degree of social well-being. Physically being present or engaging in a congregational expression of religious faith increases the opportunity to socially interact with others and derive some form of social benefit. But the tendency to cope in more adaptive ways remains the strongest predictor of social well-being (β=0.397, p=0.001).

Figure 8: Social Well-Being Mediated by Coping



[34] The indirect path from strength of religious faith to social well-being via frequency of attendance (Pfa→Psa) does result in a somewhat stronger path coefficient than the direct effect of strength of religious faith.

Table 9: Standardized Coefficients for Model 6

	Standardized Coefficients (beta weight)	**T Value**
Social Well-Being (DV)		
Frequency of Attendance	0.129**	3.074
Strength of Faith	0.070	1.647
Coping	0.397***	13.571

*=0.05, **=0.01, ***=0.001

4.2.9 Model 7: emotional well-being mediated by coping. The r square for model 7 indicates that frequency of religious service attendance, strength of religious faith, and coping account for 13.1% of the variance in respondent emotional well-being (see figure 9). Consistent with the now firmly established pattern, strength of religious faith is the only commitment variable that has a significant positive association with emotional well-being (β=0.09, p=0.05; see table 10). Individuals with stronger personal faith have significantly higher levels of both positive emotions and life satisfaction. The direct effect of strength of faith is the strongest compared to all of the potential indirect compound paths. Adaptive coping exerts a vastly stronger influence on emotional well-being in the model (β=0.447, p=0.001). Again, respondents who are more likely to manage the strain and stress they face using more constructive coping techniques are significantly healthier emotionally.

Figure 9: Emotional Well-Being Mediated by Coping

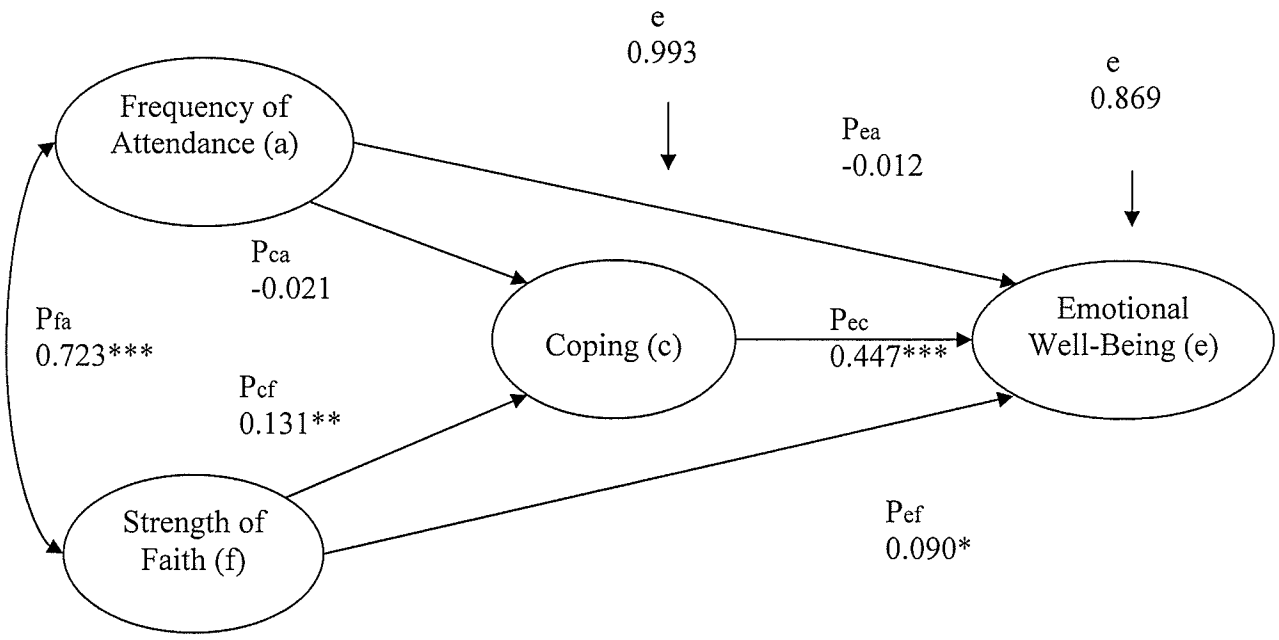


Table 10: Standardized Coefficients for Model 7

	Standardized Coefficients (beta weight)	**T Value**
Emotional Well-Being (DV)		
Frequency of Attendance	-0.012	-0.296
Strength of Faith	0.090*	2.192
Coping	0.447***	16.720

*=0.05, **=0.01, ***=0.001

4.3.0 Model 8: overall well-being mediated by coping. The final coping model explains 20.8% of the variance in overall well-being (psychological, social, and emotional), which is comparable to the psychological well-being model mediated by coping (see figure 10). The private indicator of religious commitment has a significant positive impact on overall well-being; those people with stronger private faith have significantly better overall mental health (β=0.09, p=0.05; see table 11). But, as with all

of the social support models, the mediating variable (coping in this case) is the absolute strongest predictor of overall individual well-being (β=0.581, p=0.001).

Figure 10: Overall Well-Being Mediated by Coping

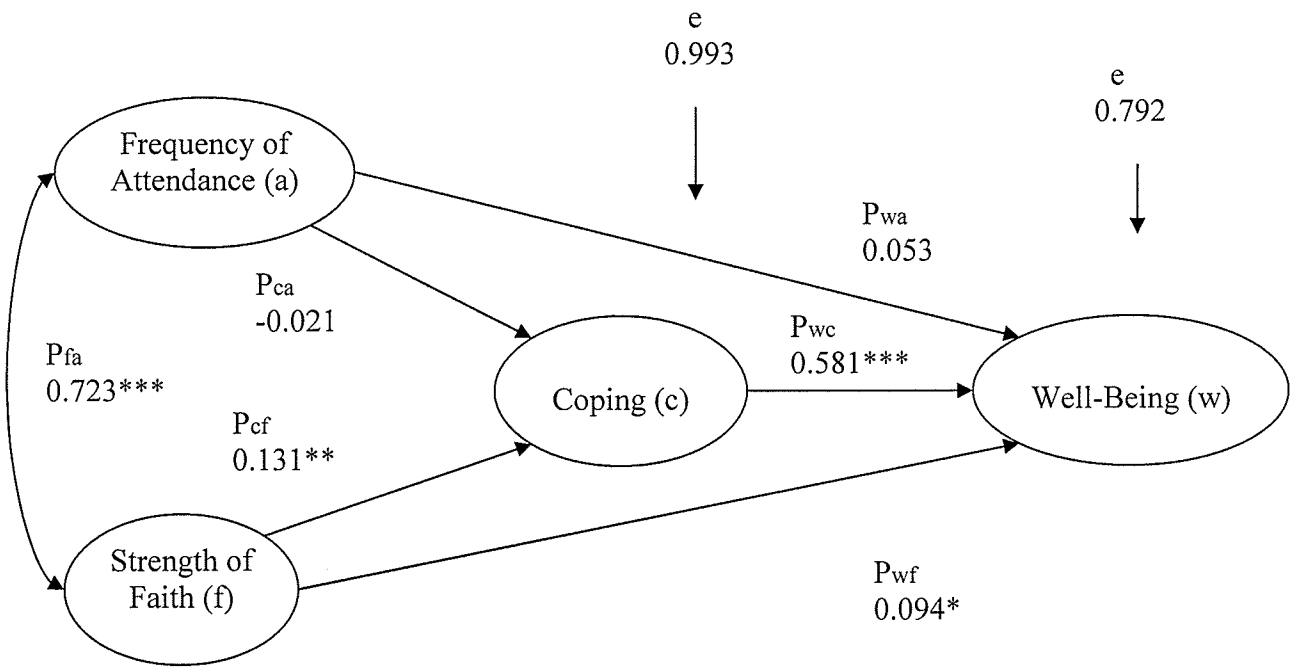


Table 11: Standardized Coefficients for Model 8

	Standardized Coefficients (beta weight)	**T Value**
Well-Being (DV)		
Frequency of Attendance	0.053	1.351
Strength of Faith	0.094*	2.404
Coping	0.581***	21.395

*=0.05, **=0.01, ***=0.001

4.3.1 Summary of coping models. The results for the four models investigating the role that coping plays in the relationship between religious commitment and well-being are not only similar to each other, but are similar to the social support models. The public indicator of religious commitment is found to have no significant bearing on either the

mediating variable or the well-being variables (aside from the direct effect on social well-being). Contrary to the research hypothesis, increased service attendance does not positively impact the manner in which individuals choose to cope with their problems. Strength of faith, it seems, is less important in the coping models than the social support models, as the only direct significant associations are with emotional well-being and overall well-being. Strength of faith, however, does have a significant positive association with coping and coping, in turn, has a strong positive influence on all four types of well-being.

This chapter has presented and interpreted the multivariate path analysis results for the social support and coping models. Accordingly, it can be concluded that of the two religious commitment variables, only the private indicator of strength of religious faith has a significant positive impact on individual well-being in this sample. However, the private commitment variable exerts only a minor influence when compared to social support and coping. Social support and coping are the strongest predictors of individual well-being and this influence is exerted directly, not indirectly. Chapter five discusses the greater implications of these results, outlines the study's limitations and, based on these, offers both suggestions for future research and possible policy initiatives.

Table 12: Calculated Indirect Path Coefficients

Direct/Compound Path	Path Coefficient
Social Support Models	
Social Support (DV)	
P_{ua}	**0.083**
P_{faPuf} (0.723***)(0.047)	0.030
P_{uf}	**0.047**
P_{faPua} (0.723***)(0.083)	0.060
Model 1: Psychological Well-Being	
P_{pa}	**-0.046**
P_{uaPpu} (0.083)(0.636***)	0.053
$P_{faPufPpu}$ (0.723***)(0.047)(0.636***)	0.022
P_{faPpf} (0.723***)(0.093**)	0.070
P_{pf}	**0.093****
P_{ufPpu} (0.047)(0.636***)	0.030
P_{faPpa} (0.723***)(-0.046)	-0.030
$P_{faPuaPpu}$ (0.723***)(0.083)(0.636***)	0.040
Model 2: Social Well-Being	
P_{sa}	**0.072**
P_{uaPsu} (0.083)(0.594***)	0.050
P_{faPsf} (0.723***)(0.094*)	0.070
$P_{faPufPsu}$ (0.723***)(0.047)(0.594***)	0.020
P_{sf}	**0.094***
P_{ufPsu} (0.047)(0.594***)	0.030
P_{faPsa} (0.723***)(0.072)	0.050
$P_{faPuaPsu}$ (0.723***)(0.083)(0.594***)	0.040
Model 3: Emotional Well-Being	
P_{ea}	**-0.063**
P_{uaPeu} (0.083)(0.500***)	0.040
P_{faPef} (0.723***)(0.130**)	0.090
$P_{faPufPeu}$ (0.723***)(0.047)(0.500***)	0.017
P_{ef}	**0.130****
P_{ufPeu} (0.047)(0.500***)	0.020
P_{faPea} (0.723***)(-0.063)	-0.050
$P_{faPuaPeu}$ (0.723***)(0.083)(0.500***)	0.030
Model 4: Overall Well-Being	
P_{wa}	**-0.016**

PuaPwa (0.083)(0.682***)	0.060
PfaPwf (0.723***)(0.139***)	0.100
PfaPufPwu (0.723***)(0.047)(0.682***)	0.020
Pwf	**0.139*** **
PufPwu (0.047)(0.682***)	0.030
PfaPwa (0.723***)(-0.016)	-0.010
PfaPuaPwu (0.723***)(0.083)(0.682***)	0.040
Coping Models	
Coping (DV)	
Pea	**-0.021**
PfaPcf (0.723***)(0.131**)	0.090
Pcf	**0.131** **
PfaPca (0.723***)(-0.021)	-0.015
Model 5: Psychological Well-Being	
Ppa	**0.019**
PcaPpc (-0.021)(0.602***)	-0.010
PfaPpf (0.723***)(0.044)	0.030
PfaPcfPpc (0.723***)(0.131**)(0.602***)	0.060
Ppf	**0.044**
PcfPpc (0.131**)(0.602***)	0.080
PfaPpa (0.723***)(0.019)	0.014
PfaPcaPpc (0.723***)(-0.021)(0.602***)	-0.010
Model 6: Social Well-Being	
Psa	**0.129** **
PcaPsc (-0.021)(0.397***)	-0.010
PfaPsf (0.723***)(0.070)	0.050
PfaPcfPsc (0.723***)(0.131**)(0.397***)	0.040
Psf	**0.070**
PcfPsc (0.131**)(0.397***)	0.050
PfaPsa (0.723***)(0.129**)	0.090
PfaPcaPsc (0.723***)(-0.021)(0.397***)	-0.010
Model 7: Emotional Well-Being	
Pea	**-0.012**
PcaPec (-0.021)(0.447***)	-0.010
PfaPef (0.723***)(0.090*)	0.070
PfaPcfPec (0.723***)(0.131**)(0.447***)	0.040
Pef	**0.090***
PcfPec (0.131**)(0.447***)	0.060
PfaPea (0.723***)(-0.012)	-0.010
PfaPcaPec (0.723***)(-0.021)(0.447***)	-0.010

Model 8: Overall Well-Being	
P_{wa}	**0.053**
$P_{cs}P_{wc}$ (-0.021)(0.581***)	-0.010
$P_{fa}P_{wf}$ (0.723***)(0.094)	0.070
$P_{fa}P_{cf}P_{wc}$ (0.723***)(-0.021)(0.581***)	0.060
P_{wf}	**0.094***
$P_{cf}P_{wc}$ (0.131**)(0.581***)	0.080
$P_{fa}P_{wa}$ (0.723***)(0.053)	0.040
$P_{fa}P_{ca}P_{wc}$ (0.723***)(-0.021)(0.581***)	-0.010

*=0.05, **0.01, ***=0.001

CHAPTER FIVE: DISCUSSION & CONCLUSION

Given the findings of this particular study, the final chapter provides a detailed discussion of the multivariate results, explores the limitations of the study, presents suggestions for future research and makes recommendations for policy makers, in addition to a few concluding remarks summarizing the project.

5.1 Discussion

5.1.1 Implications for the study of religion. The majority of the evidence found in the literature on religion and mental health describes significant positive associations between various measures of religion including public indicators like service attendance and participation in other institutional religious activities (see George et al. 2000). One is lead to believe that, more often than not, individuals who are more religious in general are going to experience better mental health. Contrary to this assertion, the results of this study support the conclusions of Hackney and Sanders (2003), who find that measures of institutional religiosity actually produce the weakest associations between religion and mental health. On the contrary, they find ideological measures and personal devotion to be the strongest correlates. Private faith is consistently found to enhance all types of well-being in this sample while the public indicator of faith makes almost no difference whatsoever.

That private or intrinsic faith appears to surpass public faith in terms of mental health consequences is an important finding with major implications for the future of religious practice for everyone, not just young adults. At the outset of this project, the idea that higher religious commitment might function as a "side bet" was put forth. It

seems that a stronger private commitment to religion is associated with the provision of "good things" (i.e., mental health). Individuals who are more religious may not realize it, but their personal commitment to faith is likely benefiting them psychologically, socially, and emotionally, in addition to whatever type of spiritual gain they enjoy.

Bibby (2002) asserts that the need and desire for religion and the spiritual has not been extinguished, in fact, it remains strong in the Canadian population. The disconnect between wanting to incorporate religion into daily life and actually attending and participating in organized religious activity ostensibly lies with how religion is currently delivered; "all is well on the demand side. It's the supply side that poses the problem" (P. 225). People say they would participate more in religious activities if it was *worthwhile* to them. They are concerned with ultimate existential questions including the meaning/purpose of life, how to achieve happiness, end suffering, and whether or not there is life after death. Individuals report experiencing 'God' firsthand, communicate with Him, and believe He cares for them. Canadians believe in a higher sense of justice/damnation, hang onto hope, and reconcile there is a grander order in the world. Most importantly, those who report never attending, no affiliation, and those who decline to become involved in organized religion at all are among these people (Bibby 2002). If the landscape of religion is morphing from a relatively structured, traditional, and ritualistic form into a more fluid, individualized, and intrinsic form, attendance rates will continue to fall, people will continue to turn away from "the church" and actively construct a faith which is more consistent with their lifestyle, values, and ideals (see Roof and McKinney 1987; Davie 2004, 2008). Clearly, religious expression is beneficial, but

this benefit is not a function of all types of religious expression. What you believe matters far more than what you do.

Perhaps the most unexpected finding is that neither of the religious commitment variables have any sort of significant impact on social support. While this is not as surprising for coping, it is rather surprising for social support since one of the dominant conclusions of the literature is that increased religious service attendance promotes significantly higher levels of social support (see Ellison and George 1994; Ellison and Levin 1998). In fact, attendance is not significantly related to anything aside from social well-being (and only in one model). The logical relationship that one would expect is that increased attendance would elevate social support, which in turn, benefits social well-being. There is apparently some association between the public expression of faith and social well-being, but it likely is not via social support. If more frequent attendance at religious services is not contributing to increased levels of social support as asserted, what benefit does it have? If individuals cannot only enhance their mental health and well-being directly through strength of religious faith but also indirectly via the provision of adaptive coping techniques, (which emerges as the second most important factor in increased well-being), there is little reason to express faith publicly. If individuals believe a stronger religious commitment bears on their mental health, their efforts should turn to nurturing their intrinsic as opposed to extrinsic religiosity.

It appears that, the only compound path to support the research hypothesis is from strength of faith to coping and well-being. But, even here, the direct effects of strength of religious faith are stronger. The findings indicate that the character of religion in young adults is more strongly inclined towards the private. Having a stronger internal faith

clearly influences the ways that people cope with adversity; this demonstrates that there is an important connection between religion and people's orientation towards their social world. Private faith is, in some way, influencing how individuals choose to deal with their problems. If stress theory is correct and the amount of stress people face is a major determinant of their mental and physical health status, religion can play an important role in not only the treatment of established difficulties, but their prevention and the promotion of health. The acquisition of private faith, in whatever form individuals choose, might be a valuable weapon in the shift away from pathology but the majority of people will not experience these benefits since they do not attend. Religious organizations might do well to bring religion to the masses instead of expecting the "masses" to attend "mass".

5.1.2 Implications for the study of well-being. The fact that the mediating variables have the strongest influence on all forms of well-being is quite revealing. Furthermore, the fact that these variables are the strongest *direct* predictors totally refutes the hypothesis that they are mediators for well-being. It is clear that these variables should be given much more credit. The foundation of this study rests on the idea that although the distinction between public and private is important in some instances (i.e., in terms of religious expression), such division is, at best, unwarranted when mental health is the focus of investigation. Not only does mental health, itself, include more or less public and private aspects (i.e., social well-being versus psychological and emotional well-being), but both of these aspects are greatly affected by social forces.

Individuals that have a higher level of perceived social support have better psychological, social, and emotional health. The findings provide support for Thoits

(1995) and other researchers who recognize the importance of social support for health outcomes. While we, as individuals, may have personal problems these problems manifest in social contexts and can be at least partially alleviated by social factors. Social factors (like social support) should always be a primary consideration when dealing with seemingly "non-social" issues like psychological and emotional health. An individual's psychological and emotional health are not private and cannot be dealt with on private terms; merely treating the *individual* (i.e., with pharmaceuticals or therapy) may only be addressing part of the greater problem. In order to go beyond symptom management, the person's whole situation needs to be taken into account. It is vital that attention be paid to both the size and quality of various social networks; the benefits they confer, in addition to the strain they may contribute. The methods people utilize to deal with stress and strain also serve to emphasize the importance of the social for individual mental health; affecting mental health directly and indirectly. While, on the one hand, an individual's social network and support system may be a "social fund" from which to draw on (Thoits 1995), on the other hand, it is equally possible that this network may negatively affect individuals, causing them significant stress, at times. Individuals are going to have to deal with unpleasant situations in some way and as the results demonstrate, the manner in which they choose to cope has great consequences for well-being. In a more direct sense, if an individual's social network is not the primary cause of their stress and strain, it may be the conduit for the acquisition of adaptive coping. Such a claim warrants further empirical research, but one can certainly entertain the notion that individuals learn coping strategies from significant others and this modeling is either going to benefit or harm well-being, depending on the strategies that are passed on.

The driving force behind the shift towards positive psychology and a science that focuses on what helps people to function optimally is to identify those factors that *promote* health rather than merely *prevent* illness. It is valuable to know the correlates of well-being in various segments of the population; that private religious commitment is of small consequence compared to social support and adaptive coping in young adults enables more focused future investigations. More importantly, if it can be demonstrated that social support and adaptive coping are vital promotion factors in general there is an empirically grounded starting place to begin actively and practically promoting mental health.

5.2 Limitations

Like all research, this study is not without its limitations. The most salient limitation of this study is that the sample is a non-probability convenience sample. Regardless of the large sample size, the results cannot simply be extended to the greater population. It is inappropriate to conclude that public religious attendance is wholly irrelevant to all young adults' mental health and that private faith has only salutary effects. It is more appropriate to contextualize the findings and remember that, for the most part, they describe the relationship between religious commitment and well-being in particular young adults, aged 18-24, who are attending university.

Another limitation is that the Mental Health and Well-Being Survey (MHWBS) is a self-report study. One shortcoming of *all* self-report surveys is the likelihood of social desirability influencing the answers respondents give (Singleton and Straits 2005). The MHWBS asked respondents a wide array of questions on various topics, some of which

were very sensitive in nature. It is entirely possible that respondents also felt pressure to answer questions related to the amount of social support they have, the manner in which they cope, and evaluate their level of well-being in ways that positively exaggerate their actual levels. Likewise, respondents may or may not have felt pressure to either exaggerate or minimize their religious involvement. Batson et al. (1993 c.f. Hill and Pargament 2003) find that measures of religion are, in fact, quite susceptible to social desirability bias. Regardless of the scenario, such indirect factors might have affected the data unbeknownst to the researchers.

Methodologically, the decision to use path analysis has its own shortcomings. The biggest drawback in path analysis is that measurement error cannot be accounted for and eliminated as in more statistically robust techniques such as Structural Equation Modeling (SEM) (Tabachnick and Fidell 2007). In general, coefficients estimated from less reliable measurements will be incorrect (Heise 1969). Designing a path model requires the researcher to be informed by some sort of theory indicating a causal order. The researcher wants to be able to say that the exogenous variables in the model influence the endogenous variables and that change in one will result in changes in the other. The particular survey used for the analysis is cross-sectional and consequently, cannot meet the criteria of causation. Temporally, it is assumed in this project that one's level of religious commitment has been set and subsequently helps determine their level of social support and the manner in which they choose to cope with adverse life events. These mechanisms are then assumed to shape individual well-being. The only way to confidently conclude that this proposed time order is correct is to study the relationship longitudinally and actually observe whether or not a stronger religious commitment leads

to the acquisition of social support/adaptive coping and if positive changes in well-being can then be recorded. Likewise, outside artificial experimental conditions it is difficult to rule out spurious correlations and the influence of unknown, external factors that could very well affect the variables in the model. When a path model is identified, it is also assumed that the exogenous variables have "causal priority"; that those particular variables are driving the relationship (Heise 1969:51). It is nearly impossible to know whether or not the designated causal order is correct beforehand[35]. The analysis will still produce path coefficients even though the order may be flawed and not reflect empirical reality (Heise 1969). That being said, it is important to remember that the goal of this particular study was to *explore* the nature of the associations among religion, social support, coping, and well-being. Established theory and literature provided evidence of a clear causal order that does not appear valid for *this particular* sample. Refuting accepted ideas is equally as important as supporting them.

Finally, the concept "strength of religious faith" is used to indicate private religious faith; the internal, ideological expression of religion that has less to do with what rituals an individual performs as it does the degree to which they personally accept religion. The Santa Clara Strength of Faith questionnaire is a structured 10-item instrument purported to capture this idea. While the instrument is found to have a high degree of convergent validity, correlating strongly with measures of intrinsic religiosity and moderately with both indicators of non-organizational religiosity and the feelings of comfort obtained from religion (Sherman et al. 2001), one may be still left wondering whether or not structured scales are able to adequately tap into how intrinsic religiosity is manifested in everyone. Private faith is, by definition, subjective and it may be naïve to

[35] The fact that the mediators exhibit the greatest influence highlights this shortcoming.

think that even empirically reliable and valid instruments have identified the entire structure of intrinsic faith[36]. Hill and Pargament (2003) praise the advancements that have been made in the scientific measurement of religion, but caution that there is still much that can be improved upon. Religious instruments should be contextual and consider the diverse nature of faith cross-culturally; many instruments have been designed based on Judeo-Christian traditions that not everyone ascribes to.

5.3 Implications for Future Research

The results of this study suggest several important future areas of investigation for religion, social support, coping, and well-being. Foremost, research concerning religious commitment in samples of young adults would be advised to either exclude measures of public religious expression (i.e., service attendance) altogether or at least pursue less researched organizational activities as indicators (i.e., charity or volunteer work affiliated with religious institutions). Alternatively, another fruitful research course may be to uncover why it is that religious service attendance has little to no influence on outcomes like social support and well-being. Perhaps there is a significant difference between those individuals that attend services because they want to as opposed to those who attend because they feel they *have* to. It is apparent from these results that private, intrinsic faith is the determining factor when it comes to faith in young individuals. Further exploration into how intrinsic faith is cultivated or socially determined and why this type of religious expression is beneficial would be valuable contributions to the field. In the interest of

[36] Anecdotally, during the data entry process for the Mental Health and Well-Being Survey, one of the researchers read several comments concerning the validity of the Santa Clara Strength of Religious Faith questions. Some respondents stated that the questions were too narrow (i.e., "too monotheistic" and not philosophical enough) and that their personal idea of faith was not reflected.

developing valid instruments, qualitative research to better understand what private faith truly means to young adults and how it is manifested is necessary.

Simply because public religious expression was not found to be a significant factor for well-being in this particular sample does not mean it is not an important predictor for the well-being of other populations (i.e., those in mid-life or older, recent immigrants, etc.) or significantly related to other outcomes. One of the most obvious projects would be to compare students from so-called "religious" universities (i.e., the Canadian Mennonite University) with students from secular universities on any number of mental health outcomes. There are still many avenues that must be explored. For instance, the findings suggest that individuals who are more committed to religion (at least privately) tend to cope with life stress and strain in relatively adaptive or positive ways. Why is this so? Considerable research has focused on *religious coping*, in other words, coping techniques that are religious in nature and include religious appraisal and figures (see Pargament et al. 1998; 2000) but relatively little attention has been paid to whether or not individuals who are more religious are more or less likely to cope successfully and why. Can this association be replicated in other samples? Is it only those that have strong internal faith that cope better or is the effect more general?

Social support and coping emerge as the greatest predictors of individual psychological, social, emotional, and overall well-being. But it is obvious that neither the social support respondents enjoy nor the manner in which they cope is a function of religious service attendance. While it may at first appear irrelevant, it is important to further investigate just how young adults acquire social support, particularly young adults that have undergone a significant life transition to university where they may not know or

feel connected to anyone. If social support has the impact on well-being the analysis suggests, this should be a major concern. In a similar vein, it is imperative that researchers examine the development of coping in young adults; how particular styles of coping are learned and their consequences. Unlike social support, strength of religious faith is found to have a significant positive impact on adaptive coping. Future research should investigate this association in-depth and uncover how exactly private faith is related to coping. Is meaning a common factor (Park et al. 2005)? Do those with a stronger faith have a different perspective when approaching problems that predisposes them to select more problem-focused techniques?

Finally, as previously stated, the mediating variables are found to have the greatest salutary effect on well-being. Research concerned with well-being should include these factors in future studies to further specify the correlates of individual flourishing and languishing and uncover whether or not the findings can be generalized to the Canadian population as a whole and cross-nationally.

5.4 Implications for Policy

One of the potential recommendations for policy change, at least at the university level, concerns mental health promotion from the standpoint of various initiatives that aim to improve social support and teach adaptive and effective methods of coping. Administrators certainly have the ability to re-focus their concern for student well-being and implement programs of this nature; the level of support one has and the way they deal with stress is currently the sole responsibility of the individual, but there is no reason

why it cannot also become a public concern. There is great potential to test the utility of such programs at universities where both academic and interpersonal stress is abundant.

Universities might also find success in creating more opportunities to expose students to a wider array of religions and faiths and/or providing increased financial resources to established student religious groups. While it certainly would not be appropriate to create an environment biased in favor of those who are more religious, the inherently culturally diverse character of university student bodies is an untapped resource. Students who have had very little experience with religion and those who have previously dismissed religion may find themselves open to the idea of developing their own unique brand of faith as opposed to being forced to fit into the traditional organized denominations. Moreover, since intrinsic faith and social support are linked to better well-being, such peer communities may offer compounded benefits.

5.5 Concluding Remarks

The present study explored the relationship between religious commitment, social support, adaptive coping, and well-being in a sample of young adults. Findings indicate that private religious commitment has a significant bearing on both public and private aspects of well-being, but that the strongest determinants are the level of social support one has and the tendency to cope with life stress in relatively adaptive ways. Such findings have important implications for the study of both religion and well-being; reliance on superficial indicators of religious commitment (i.e., attendance) may not adequately capture the manifestation of religion, particularly in young people. Organized religion may have to adapt its style of delivery if the benefits of increased religious

commitment are to be enjoyed by the population in general. Furthermore, the continued evolution of mental health promotion requires additional exploration of social factors like social support. Individual support networks may significantly impact not only objective and perceived social support, but also the amount of stress an individual experiences and the methods employed to deal with that stress. Religion and mental health are both public and private and it is clear that both dimensions are necessary components of the larger whole that have varying consequences for the individual. Science has relentlessly pursued one piece of the puzzle. It is important to continue to investigate what makes people sick, but the demand for redirection towards the positive is long over-due; mental health must be fully understood within a dual continua model. It is time to look beyond the pathological and the private and include the positive and the social. The individual does not just become *ill* in isolation; the individual either becomes ill or becomes healthy as they interact with their social surroundings.

APPENDIX A
COMPLETE LIST OF HYPOTHESES

1. The direct effect of strength of religious faith and frequency of religious service attendance will be positively correlated with social, emotional, and psychological well-being (and overall well-being).
2. Social support and ways of coping will indirectly affect the relationship between strength of religious faith, frequency of service attendance and the four types of well-being.
3. Strength of religious faith and frequency of service attendance will positively influence respondents' level of social support.
4. Social support will demonstrate a positive relationship with all four levels of well-being.
5. Strength of religious faith and frequency of service attendance will positively influence respondents' ways of coping.
6. Ways of coping will positively influence all four types of well-being.

APPENDIX B
VARIABLE CODING SCHEMES

Variables	**Coding**
Demographic Variables	
Sex	0=male, 1=female
Relationship Status	0=single, 1=in a relationship
Immigrant Status	0=immigrant (was not born in Canada), 2=non-immigrant (born in Canada)
Ethnic Status	0=Caucasian/White 1=Other minority (Asian, Black/African-Canadian, Latin/Central or South American, Mixed Heritage) 2=Aboriginal/First Nations/Metis/Inuit
Exogenous/Independent Variables	
Frequency of Religious Service Attendance	Treated Continuously; 1=never, 2=a few times a year, 3=monthly, 4=weekly, 5=more than once a week
Strength of Religious Faith	Continuous; 0-60
Endogenous/Independent Variables	
Social Support	Continuous; 0-120
Ways of Coping	Continuous; 0-164
Endogenous/Dependent Variables	
Psychological Well-Being	Continuous; 0-132
Social Well-Being	Continuous; 0-120
Emotional Well-Being	Continuous; 0-110
Well-Being	Continuous; 0-362

APPENDIX C CORRELATION MATRIX								
	Attendance	Strength of Religious Faith	Social Support	Ways of Coping	Psychological Well-Being	Social Well-Being	Emotional Well-Being	Well-Being
Attendance	1							
Strength of Faith	0.723**	1						
Social Support	0.117**	0.107**	1					
Ways of Coping	0.074*	0.116**	0.447**	1				
Psychological Well-Being	0.095**	0.127**	0.641**	0.608**	1			
Social Well-Being	0.209**	0.209**	0.612**	0.414**	0.618**	1		
Emotional Well-Being	0.089**	0.137**	0.506**	0.487**	0.685**	0.533**	1	
Well Being	0.164**	0.200**	0.695**	0.595**	0.913**	0.836**	0.837**	1

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

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

APPENDIX D
UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS

	Unstandardized Coefficients (slopes)	**Standard Error**
Model 1		
First Regression: Psychological Well-Being (DV)		
Frequency of Attendance	-0.709	0.544
Strength of Faith	0.081**	0.031
Social Support	0.654***	0.025
Second Regression: Social Support (DV)		
Frequency of Attendance	1.233	0.676
Strength of Faith	0.040	0.038
Model 2		
Social Well-Being (DV)		
Frequency of Attendance	0.932	0.475
Strength of Faith	0.069*	0.027
Social Support	0.517***	0.022
Model 3		
Emotional Well-Being (DV)		
Frequency of Attendance	-0.681	0.435
Strength of Faith	0.079**	0.025
Social Support	0.360***	0.020
Model 4		
Well-Being (DV)		
Frequency of Attendance	-0.535	1.187
Strength of Faith	0.267***	0.067
Social Support	1.553***	0.055

*=0.05, **=0.01, ***=0.001

APPENDIX D
UNSTANDARDIZED COEFFICIENTS AND STANDARD ERRORS

	Unstandardized Coefficients (slopes)	**Standard Error**
Model 5		
First Regression: Psychological Well-Being (DV)		
Frequency of Attendance	0.289	0.562
Strength of Faith	0.038	0.032
Coping	0.795***	0.034
Second Regression: Coping (DV)		
Frequency of Attendance	-0.241	0.526
Strength of Faith	0.086**	0.030
Model 6		
Social Well-Being (DV)		
Frequency of Attendance	1.676**	0.545
Strength of Faith	0.051	0.031
Coping	0.444***	0.033
Model 7		
Emotional Well-Being (DV)		
Frequency of Attendance	-0.131	0.441
Strength of Faith	0.055*	0.025
Coping	0.442***	0.026
Model 8		
Well-Being (DV)		
Frequency of Attendance	1.789	1.325
Strength of Faith	0.182*	0.076
Coping	1.700***	0.079

*=0.05, **=0.01, ***=0.001

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