

SENSE OF COHERENCE, SPIRITUAL MATURITY, AND PSYCHOLOGICAL WELL-  
BEING AMONG UNITED METHODIST CLERGY

By

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To ministers

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SENSE OF COHERENCE, SPIRITUAL MATURITY, AND PSYCHOLOGICAL  
WELL-BEING AMONG UNITED METHODIST CLERGY

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While there has been a great deal of research into the psychological functioning of religious persons, Christians in particular, relatively little research has been devoted to the psychological functioning of religious leaders. What research is available on the psychological functioning of both religious persons and clergy has largely focused on pathology. This study focused on the psychological well-being of clergy. Three hypotheses were tested. Hypothesis 1 predicted that sense of coherence, or that one perceives his or her life as predictable, meaningful and manageable, would contribute to six domains of psychological well-being. Sense of coherence was found to contribute to autonomy, environmental mastery, positive relations with others, purpose in life, and self acceptance, but was not found to contribute to Personal Growth among clergy. However, Sense of coherence was found to make a small contribution to purpose in life when the total sample was considered together. Hypothesis 2 predicted that clergy would fare better psychologically than non-clergy, was largely not supported. Hypothesis 3 predicted that sense of coherence mediates spiritual maturity and psychological well-being. Sense of coherence was found to mediate spiritual maturity dimensions of awareness of God and instability and each domain of psychological well-being.

## CHAPTER 1 PSYCHOLOGICAL WELL-BEING OF UNITED METHODIST CLERGY

An ABC News poll reported in February 2002 that 83% of all Americans profess to be Christians. It is not surprising that most religious research until recent years has focused in particular on Christians (Hood, Spilka, Hunsburger, & Gorsuch, 1996). My study extends this knowledge base. Even though there is a large amount of data on Christians in general, little research has been conducted on the psychological functioning of Christian leaders. Past research has largely focused on pathology and personal dysfunction. My study distinguishes itself by focusing on psychological well-being of pastors. This line of research has far-ranging implications concerning ministry effectiveness and longevity, clergy marital satisfaction and relationship satisfaction more broadly, and many other areas of clergy personal and professional development. Development of prevention programs aimed at assisting clergy in developing a more psychologically healthy lifestyle may forestall burnout, compassion fatigue, and the devastating consequences of pastoral malfeasance.

Positive functioning in the psychological literature has been examined primarily through the use of two constructs: subjective well-being and psychological well-being. Subjective Well-being has been developed by Deiner and colleagues as a measure of life satisfaction, the experience of pleasant emotion, and infrequent negative affect (Deiner, Lucas, and Oishi, 2002). Other researchers, however, argue that one might experience a sense of subjective well-being, yet not engage in adaptive behaviors that allow the individual to function at the highest possible level (Ryff, 1989a, 1989b). As an alternative Ryff proposed the notion of psychological well-being that encompasses the domains of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. According to Ryff, this conception

of psychological well-being is consistent with philosophical and psychological theory concerning what constitutes the good life (Ryff & Singer, 1998).

What factors might contribute to the psychological well-being of pastors? My project proposes that two variables will contribute to the psychological well-being of pastors: sense of coherence and spiritual maturity. Sense of coherence was developed by medical sociologist Anton Antonovsky (1987). Essentially, an individual with a high sense of coherence perceives his or her environment as structured, manageable, and meaningful. Antonovsky's contention, supported by subsequent research, is that individuals with a high sense of coherence will have better medical outcomes than individuals with a lower sense of coherence. Other researchers have extended Antonovsky's salutogenic work to include psychological as well as medical outcomes (chapter 2). Based on this line of thought, high sense of coherence is hypothesized to contribute to the psychological well-being of pastors.

The second factor predicted to contribute to the psychological well-being of pastors is spiritual maturity. Hall and Edwards (1995) developed a theory of spiritual maturity based on object relations theory. Object relations theorists hold that human beings are not basically pleasure seeking, as Freud had posited, but that humans beings are relationship seeking. In more analytic terms, the libido does not seek pleasure, but objects. According to British object relations theorists such as Fairbairn (1952) and Guntrip (1971), the goal of parenting (i.e., the interpersonal goal of early relational objects) is the development of a child who is able to maintain real contact with real people. In other words, if early parental interactions are inadequate, the child may turn away from the external world of people, thus preventing the establishment of authentic relationships. The meaning of this for my project is that if a person is

not capable of establishing and maintaining contact with people, neither will that person be capable of establishing and maintaining a relationship with God.

Hall and Edwards (1996) contend that individuals relate to God through the same psychological processes used to relate to others. Hall and Edwards theorize that in order to have a relationship with God, one must first be aware of God. Therefore, the first domain of their theory is awareness. The second domain of their theory is Quality of Relationship with God. The Quality of Relationship domain has three factors: instability, grandiose, and Realistic Acceptance. Individuals with an unstable relationship with God alternate between extreme valuing and devaluing their relationship with God, have a chaotic relationship pattern with God, and frequently experience feelings of abandonment by God. An individual with a grandiose pattern of relating to God values the relationship for purely self-centered reasons such as getting personal needs met or for protection. The most mature relationship pattern is Realistic Acceptance. Individuals with this predominant relationship style value their relationship with God in and of itself, are able to deal with disappointments with God productively, and maintain continuity in the relationship. It is this relationship pattern that is predicted to contribute to the psychological well-being of pastors.

The personal functioning of pastors is important for a variety of reasons. Very little is known about the psychological health of this subgroup of Christians. Knowledge generated by this project may help members of the clergy to develop healthier lifestyles. This project may contribute to clergy training and the development of self-care strategies. Finally, research with clergy is important because of the potential influence they have on American culture. My project examines the influence two variables, sense of coherence and spiritual maturity, have on the psychological well-being of pastors.

## CHAPTER 2

### REVIEW OF SENSE OF COHERENCE, RELIGION AND SPIRITUALITY, AND PSYCHOLOGICAL WELL-BEING LITERATURE

For an individual to develop a sense that life is meaningful, he or she must develop a sense that the tools needed to meet life's challenges are available. In order to properly utilize the skills and resources necessary in any given situation, that person must have a way to structure life's experiences in a comprehensible way. This is the essence of Antonovsky's (1987) Sense of coherence. Spirituality has historically been measured in a variety of ways, none of which, however, have been tied closely to psychological theory. Hall and Edwards (1996) have developed a model of spirituality based in object relations theory that attempts to redress this gap in theory and measurement. Finally, Carole Ryff (1989a, 1989b) has developed a theory of psychological well-being based primarily on developmental and humanistic theories. Each of these theories along with questions and hypotheses are addressed in the chapter that follow.

#### **Sense of Coherence**

Anton Antonovsky first formally proposed the salutogenic model of health in his seminal work *Health, Stress, and Coping* (1978). A decade later Antonovsky clarified his thoughts in *Unraveling the Mystery of Health: How People manage Stress and Stay Well* (1987).

Antonovsky, a medical sociologist, argues that the medical field has focused entirely on pathology at the expense of other fruitful avenues of research and practical application. This focus on pathology has arisen out of a philosophical position that, in Antonovsky's view, is fundamentally flawed.

Traditionally, medicine has viewed human beings as either healthy or sick. This categorical system of classification has led physicians to focus much of their energy and attention on only one category: the sick. Antonovsky argues that this is a perfectly reasonable

course of action since to do otherwise would seem to be an ethically untenable position. But the *exclusive* focus on pathology has led researchers and clinicians alike to neglect the biological, sociological and psychological factors that maintain health. In Antonovsky's terminology, the medical field has failed to consider what moves an individual toward the ease end of the health ease/disease continuum. Antonovsky argues that a salutary approach to medicine can (and should) complement the current focus on pathology. Included in the more pathologically-oriented hypotheses considered in most research papers should be some hypotheses that attempt to address the question, "What predicts a good outcome (Antonovsky, 1987, p.7)." In order to shift focus to a more salutary clinical and research agenda, Antonovsky proposes a fundamental shift in the way health is viewed.

Rather than adopting the categorical healthy/sick dichotomy, Antonovsky proposes a health ease/dis-ease continuum. Health is not a static condition; biological homeostasis is an illusion. For Antonovsky, "the fundamental assumption [concerning biological functioning is] of heterostasis, disorder and pressure towards entropy as *the* prototypical characteristic of the living organism (1987, p.2, italics in original)." If heterostasis is the norm, an individual's health status can be seen as in constant flux; hence, one can be viewed as moving toward either end of the ease/dis-ease continuum at any given moment.

Considering heterostasis as the norm also has implications for the role of what are typically called stressors. Antonovsky (1987) argues that individuals are constantly bombarded by stimuli from the environment. What is the difference between two individuals faced with the same stimuli in the same environment if only one views the perceived stimuli as a stressor? For Antonovsky, the difference between the two is that the one individual has more appropriate adaptive resources, or generalized resistance resources (GRRs). This person may not perceive the

stimuli as a stressor. The other individual does not have the necessary adaptive resources or has generalized resistance deficits (GRDs). So, whether or not one perceives environmental stimuli as stressful is directly related to the degree to which the individual has adapted to his or her environment. What is of interest to Antonovsky is not the pathological case, the diabetic who dies early because she refuses to adhere to her medication regime, but the diabetic who successfully copes with the diagnosis. What is the difference between these two individuals?

In answer to this question, Antonovsky (1987) proposes the sense of coherence (SOC).

SOC is defined as follows:

The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these resources stimuli; and (3) these demands are challenges worthy of investment and engagement (p.19).

Antonovsky has labeled the three components of his definition comprehensibility, manageability, and meaningfulness.

Comprehensibility refers to the most cognitive aspect of SOC. A key word for Antonovsky in discussing comprehensibility is predictability. A comprehensible world is one in which the individual can order the stimuli that bombard the senses, structure can be extracted (or imposed) on the incoming stimuli, and clarity can be achieved through such structuring. Of the components of the SOC, this component serves a type of gateway for the other two; if the individual cannot comprehend his or her environment, the individual will not know what resources are necessary to meet the challenge posed by the environment. This in turn leads to a very low likelihood that an individual will be motivated to marshal the necessary coping resources. At the same time, however, Antonovsky places comprehensibility second to meaningfulness in a hierarchy of SOC components. Antonovsky posits that if one is faced with a

situation that is meaningful enough, the person will impose structure and find resources to adapt to the situation.

Manageability refers to the person's perception that he has the resources available meet the demands imposed by the environment. A person who sees his or her environment as manageable has confidence that in most situations that arise he or she will be able to adapt to changing demands. It is important to note that Antonovsky does not say that the adaptive resources must be personal resources. These resources may either belong to others, be public, or be corporate; the individual only has to have confidence that he or she will reliably gain access to the appropriate resources as needed.

Most important to the development of a strong SOC is the component of meaningfulness. Meaningfulness is the most affective of the three components of SOC. A meaningful life is one that "makes sense emotionally" and indicates that some of life's challenges "are 'welcome' rather than burdens that one would much rather do without (Antonovsky, 1987, p.18)."

Antonovsky (1987) claims that an individual's SOC is not necessarily applicable in all domains of life, but operates within a limited *sphere of concern*. What is important is that those domains of life the individual considers important are comprehensible, manageable, and meaningful. Antonovsky allows that individuals are capable of expanding or contracting their sphere of concern with the proviso that they cannot exclude inner experience, interpersonal relations, major life activities, and existential issues if they wish to maintain a strong SOC. One difficulty with this proposition is that Antonovsky does not directly address the issue of breadth of sphere of concern. It seems logical that the individual with a high SOC and a broad sphere of concern will objectively fare better when faced with environmental challenges than the individual with high SOC and a more limited sphere of concern (to say nothing of those with a

low SOC). Perhaps Antonovsky leaves this end loose in order to increase the generalizability of his theory. While not the focus of the current project, this possibility is worthy of future empirical investigation.

In developing his theory, Antonovsky (1987) also makes a distinction between a strong SOC and a rigid SOC. Antonovsky describes a person with a strong SOC as authentic, with a strong sense of self, open to alternatives, flexible, and open to new information and feedback. In contrast, the person with a rigid SOC is seen as inauthentic, claims to know almost everything, believes all problems have a ready solution, finds doubt intolerable, is frequently given to religious fanaticism, lacks a strong sense of self, is closed to alternative explanations, is automaton-like, inflexible, and is closed to new information and feedback. Having said this, Antonovsky makes no value judgments concerning cultural sources of a strong SOC. He states that it is possible that some individuals whom most would judge as unsavory characters could quite possibly have a strong SOC. A contemporary example would be that of the Islamic jihadist who may likely have a very high SOC because that particular world view offers comprehensibility, manageability, and meaningfulness to his or her existence. Conversely, it is entirely possible that many conservative evangelical Christians potentially have a very rigid SOC because their faith has not rendered their life experiences comprehensible, manageable, and meaningful.

In considering whether or not one has a strong or weak SOC gives rise to the question *How does one develop a strong SOC?* Antonovsky (1987) limits his discussion to three broad developmental periods: childhood, adolescence, and adulthood. While Antonovsky does not use the term, he describes the situation in which a child develops a sense that the world is comprehensible by being *securely attached* (Rholes & Simpson, 2004) to his or her primary

caregiver. That an infant's world is predictable and has some discernable structure opens the door to comprehensibility. If a child finds his or her environment overwhelming (i.e. being required to perform tasks for which he or she is not developmentally prepared), then the child is highly likely to see the world as highly unmanageable. Finally, Antonovsky proposes that if a child does not receive quality feedback, such as positively expressed emotion through "play, touch, concern, and voice (Antonovsky, 1987, p. 97)" from the environment, the child is not likely to see many aspects of his or her environment as meaningful.

Antonovsky posits that there are two "pathways" to a strong SOC in adolescence. The first is "the complex open society, which provides a wide variety of legitimate, realistic options (Antonovsky, 1987, p.102)." Here the young person is free to explore his or her world within clear, but broad boundaries. The second pathway is "the integrated, homogeneous, and relatively isolated culture or subculture (Antonovsky, 1987, p. 102)" such as those found in some sects of Judaism, Mormons, Amish, and other such groups. The experiences provided by a more circumscribed set of cultural expectations can also lead to a strong SOC. There is one other potential adolescent pathway that Antonovsky describes, but unlike the other two, it leads to a weak SOC. Many young people in many cultures live with the stark reality that the world is not a predictable place. War, violence, poverty, disease and the like can overwhelm those with even the most well-developed coping strategies. For those who have not had the opportunity to develop their adaptive capacities to the fullest, developing a strong SOC may be nearly impossible.

In discussing adult development, Antonvosky limits his comments to the domain of work. In order for one's work to have meaning, Antonovsky proposes that one will have freely chosen the job, and has a voice in choosing the tasks, the sequence of the tasks, and the pace of the

work. If one perceives the tasks set before him (or which he chooses) as manageable, then he will perceive that he has the resources at his disposal to complete the task. Otherwise the person experiences overload, which contributes to a weak SOC.

Work comprehensibility consists of several elements. The first element is role complexity; that is, one knows how one's work role fits within the overall organization. Secondly, job security: one is confident that she will a job in future, that one's job serves a unique function in the organization, and that she is confident that the work will continue to be valued by the larger society. Three, there is a shared culture that provides comprehensibility for the "insider." To the outsider, the work environment may seem chaotic, but to the person "in-the-know" everything is orderly. In concluding this discussion, Antonovsky does offer the caveat that the work role is only one important adult role. It could be that other roles the person finds him or herself in are more salient. It may be that one role or another is more dominant or generalizes more than others.

Antonovsky seems to be somewhat ambivalent about the stability of one's SOC. Early in his discussion Antonovsky stated that an individual's SOC is a stable characteristic. However, he does consider exceptions to that general rule. For those who enter adulthood with a low SOC, he offers no hope of improvement. For those with a moderate SOC, they will tend to spiral downward. People in this category have a limited response repertoire and therefore see the world as less manageable and eventually, Antonovsky theorizes, they will come to see the world as less comprehensible. The only good news is for those who enter adulthood with a strong SOC; once reaching adulthood, a person's SOC will likely remain quite stable. Antonovsky's contention is that therapeutic intervention at the individual level is of little benefit because psychologists cannot intervene directly and broadly in the cultural institutions in which the weak SOC

individual is embedded. From Antonovsky's perspective, these societal forces then are greater than the individual's push for change. Nevertheless, Antonovsky does allow that clinical intervention may have the ability to raise an individual's SOC scores (see below for scoring details). While these scores may be statistically significant, Antonovsky questions the clinical significance of such a change (Antonovsky, 1998).

Finally, one might ask *How does the SOC operate?* The process starts with the perception of some environmental stimuli. The person with a relatively stronger SOC views the stimuli as a non-stressor. The stimuli poses no burden for the individual. The person with a relatively weaker SOC will view the stimuli as a stressor. Antonovsky (1987) defines a stressor "as a characteristic that introduces entropy into the system—that is, a life experience characterized by inconsistency, under- or overload, and exclusion from participation in decision-making (p. 28)." Viewing the stimuli as a non-stressor is a form of environmental adaptation.

For the individual who perceives a stimuli as a stressor, Antonovsky (1987) offers three possibilities in descending order of relative strength of SOC. The individual may perceive the stressor to be benign or irrelevant. This perception represents yet another adaptive coping response. Alternately, the individual may perceive the stimuli to be positive, thus taking into account Selye's (1956, 1974) definition of eustress. Lastly, the individual with the weaker still SOC will view the stressor as endangering or threatening.

When a stimuli is perceived as a threat, Antonovsky proposes two types of responses: affective and instrumental. The person with the relatively weaker SOC at this stage will respond with emotions that do not lend themselves to an instrumental response due to their supposedly diffuse nature. These vague emotional responses, that are considered low in comprehensibility, do not lead the individual to effective, adaptive behavioral responses or a sense of manageability.

Antonovsky identifies anxiety, rage, shame, despair, abandonment, and bewilderment as the types of emotions that are experienced by a person with a relatively weaker SOC that precludes an instrumental response. However, a person with a stronger SOC will experience emotions with greater clarity, which opens up the possibility of an appropriate instrumental response. For instance, sadness, fear, pain, anger, guilt, grief, and worry are all theorized to provide enough clarity to allow the individual to manage the threatening stimuli. Antonovsky does not discuss the distinctions he makes between these two classes of emotion or how the two lists were derived. This is another point which Antonovsky may have left open for empirical research.

There is one final step in the process. Once the individual has understood the threatening stimuli as both comprehensible and manageable, he or she must select what is perceived to be the most appropriate coping strategy. This selection is based on how the individual has comprehended the environment. Once the strategy is implemented, the person with a stronger SOC will effectively use feedback from the environment to revise the coping strategy as needed. The person with the weaker SOC will not respond to environmental feedback appropriately. Rather, the person with the relatively weaker SOC may become rigid in responding to environmental feedback, thus applying the same or similar coping strategies across a wide variety of situations that may be managed more effectively through the utilization of a wider array of coping strategies.

### **Sense of Coherence and Mental Health**

Since Antonovsky (1987) originally proposed sense of coherence as a salutogenic approach to physical health, mental health researchers have also applied the concept to a variety of psychological outcomes. So how do psychological researchers make the leap from physical health outcomes to mental health outcomes? At base, the sense of coherence construct indicates the likelihood that an individual has the resources (or has access to the resources) and will utilize

those resources as necessary to cope with stimuli in the environment that are perceived as threatening. Antonovsky was correct in identifying physical illness as a potential environmental threat against which one must armament oneself. However, Antonovsky was short-sighted in limiting the range of potential environmental threats to medical conditions. Antonovsky was also limited because of his belief in the socially determined nature of one's ability to develop generalized resistance resources. This project extends Antonovsky's line of thinking by including intra- and interpersonal, social, and other environmental factors in the range of stimuli to which a person must respond. Also, I am more optimistic about an individual's ability to develop generalized resistance resources that increase the probably of an effective instrumental response to perceived threats. This is not to say that one's culture does not influence, and perhaps set limits on, the resources upon which one may call to respond to threatening stimuli. In this study, spiritual maturity is seen as a protective factor that enables a person to view their world as comprehensible, manageable and meaningful, or more coherently.

Several studies have examined psychological adjustment after trauma such as spinal cord injury (Lustig, 2005), long-term survivors of Hodgkin's lymphoma (Wettergren, Bjorkholm, & Axdorph, 2004), and women with Irritable Bowel Syndrome (IBS; Motzer, Hertig, & Jarret, 2003). While Antonovsky's original hypothesis was that patients with a higher SOC will have better physical health outcomes, these studies bridge the gap between health outcome and psychological outcome research relating to SOC. Lustig (2005) had individuals with spinal cord injury complete the Life Orientation Questionnaire twice, once as they saw themselves prior to injury and a second time as they saw their functioning at the time of assessment. Lustig found that for those who rated their SOC lower post-injury were more likely to have experienced shock and higher levels of anxiety, depression, and external hostility. These same participants scored

lower on measures of acknowledgement and adjustment. Those participants who rated their SOC as higher were less likely to score high on measures of shock, anxiety, depression, and internal anger. Interestingly, high SOC scores did not correlate significantly with measures of adjustment and acknowledgement. Wettergren, Bjorkholm, & Axdorph (2004) found SOC to be a predictor of self-ratings of quality of life among survivors of Hodgkin's lymphoma. Motzer, Hertig, & Jarret (2003) found SOC to be inversely related to distress, depression, and somatization in non-IBS patients. The only IBS symptom related (negatively) to SOC was alternating constipation and diarrhea. These studies are representative of the general findings that SOC is related to positive health and psychological outcomes (Antonovsky, 1993).

Additionally, sense of coherence has been shown to be inversely related to depression. For instance, Chimich and Nekolaichuk (2004) found that individuals who did not meet the criteria for depression showed higher levels of SOC, hope, and personal spirit as well as greater willingness to take risks. Conversely, patients meeting the criteria for depression scored significantly lower on measures of SOC and risk-taking.

Finally, suicidal ideation and suicide attempts have both been negatively associated with SOC (Petrie & Brooks, 1992). Edwards & Holden (2001) found sense of coherence and emotion-oriented coping predictive of future suicidal ideation, attempts, and self-reported likelihood of future suicidal behavior in women. For men, sense of coherence and emotion-oriented coping were predictive of suicidal ideation only. So, while SOC is generally predictive of suicidal ideation, gender differences seem to be a limiting factor to the general conclusion.

Studies investigating the role SOC plays in the work lives of helping professionals are limited. If Hall & Edwards' (1996) contention that the ministerial vocation is conceptually linked to the helping professions, then this line of research has particular significance to the present

study. One study found that therapists with a higher SOC had few negative and more positive changes following experiences of vicarious traumatization (Linley, Joseph, Loumidis, 2005). Only one study (discussed below) was identified that considered the operation of SOC in the lives of clergy.

### **Pastors' Sense of Coherence**

To date only one study has examined sense of coherence among clergy. Darling, Hill, & McWey (2004) examined the quality of life of 259 clergy and 177 clergy spouses. Quality of life was operationalized in terms of Deiner's Satisfaction with Life Scale (Diener, Emmons, Larson, & Griffin, 1985). Their findings indicate that sense of coherence is significantly and positively related to subjective well-being (.543) and spiritual resources (.427). Conversely, a significant negative correlation was found between sense of coherence and family stress (-.251), compassion fatigue (-.441), level of coping (-.231), psychological stress (-.614), and physiological stress (-.480). The authors also conducted a path analysis which indicated that psychological and physiological stress had direct negative effects on subjective well-being, whereas sense of coherence had a direct positive effect on subjective well-being. Level of coping mediated the effects of family stress on psychological and physiological stress. While compassion fatigue and spiritual resources had a mediating effect on both psychological and physiological stress, both variables had a direct effect on subjective well-being. Additionally, compassion fatigue was found to have a negative relationship with spiritual resources, while spiritual resources contributed positively to sense of coherence.

One of the unique contributions of this project is that it will further explore the relationship between the sense of coherence and spirituality. One could argue that one of the primary purpose of religious teaching, particularly Christian theology, is fostering a view of the

world that is comprehensible, manageable, and meaningful. Therefore, one might predict that sense of coherence mediates the relationship between spirituality and psychological well-being.

## **Spirituality and Religion**

### **Defining Religion and Spirituality**

Religion and Spirituality are two constructs around which there is little definitional consensus. For many years in psychology, the two constructs were seen as synonymous (Wulff, 1998). More recently, however, psychologists have been making a distinction between the two. Pargament (2002) is representative of recent trends in making a distinction between religion and spirituality,

We prefer to use the term *religion* in its classic sense as a broad individual and institutional domain that serves a variety of purposes, secular as well as sacred. *Spirituality* represents the key and unique function of religion. In this chapter, spirituality is defined as “a search for the sacred” (Pargament, 1999, p.12).

Religion is often seen as an institution or organization, such as the church or synagogue, that exists for spiritual, social, political, economic, and other functions. Alternatively, spirituality may be a part of the institution, but may, and often does, operate outside the bounds of a formal religious/institutional context.

Another indicator of the lack of scholarly consensus in defining spirituality and religion is the number of ways in which religion and spirituality have been operationalized in research. A superficial perusal of the table of contents of *Measures of Religiosity* (Hill & Hood, 1999) gives even the casual reader an indication of the diversity of interests among researchers of religion and spirituality. These authors identify and review hundreds of instruments that claim to measure a variety of constructs including religious beliefs, religious attitudes, religious practices, and religious service attendance.

In addition to the definitional problems addressed above, Slater, Hall, and Edwards (2001) identified four additional weaknesses in the measurement of religion and spirituality: illusory spiritual health, ceiling effects, social desirability, and bias. The notion of illusory spiritual health is based on Shedler, Mayman, & Manis' (1993) model of illusory mental health. Slater, Hall and Edwards propose that there are three spiritual subgroups: those that are genuinely spiritual based on both self-report and clinical observation, those that are not spiritual based on the same two measures, and lastly, those that report spiritual health, but who are observed to be less spiritual than they themselves report. The authors speculate that there are certain religious groups that place pressure on individual adherents to maintain the appearance of spiritual health at all costs. Thus, researchers need to account for this possible response bias in developing instruments assessing spirituality.

A second problem in assessing spirituality is ceiling effects. Ceiling effects do not allow researchers to draw accurate conclusions about individuals functioning above average. One group of researchers (Bufford, Paloutzian, & Ellison, 1991) concluded that the Spiritual Well-being Scale (Ellison, 1983), one of the more popular measures of spirituality, is of little use with evangelical populations due to ceiling effects.

Thirdly, the authors argue that researchers need to attempt to control for social desirability in both the development of spirituality instruments and in test administration. The authors suggest including measures of social desirability in the development of the instrument so that the data can either be factor analyzed or regressed.

Finally, the authors address bias. Research has indicated that many of the instruments measuring spirituality have been developed within a denominational or theological context. However, when moved out of that original context, it appears that members of other

denominations and/or theological traditions do not fair as well. The authors argue that traditional measures of determining differential item functioning may not be adequate. Consequently, they recommend the use of Item Response Theory to guide the selection of items. The difficulty with this approach is that very large samples are required and that most research in this area has not risen to this level of statistical sophistication.

### **Measuring Spirituality**

Hall and Edwards (1996, 2002) have developed a model of spirituality that attempts to address many of the theoretical and psychometric issues raised above. Hall and Edwards argue that relationship is the centerpiece of Christian theology. That individuals relate to God is supported by both biblical sources (e.g. Genesis 1:26) and theological discourse (Erikson, 1985; Saucy, 1993). Hall and Edwards, however, took upon themselves the twin objectives of remaining true to their Christian theological understandings while at the same time grounding their model of spirituality in psychological theory.

To establish a solid psychological foundation for their theory, Hall and Edwards (1996) turned to object relations theory. Two key assumptions undergird this choice. First, object relations theory is congruent with the basic theological premise previously stated. Second, psychological and spiritual well-being have been seen as developing along parallel paths. Hall and Edwards point to Carter (1974) as the first to propose that spiritual maturity and the process of self actualization as described by theorists such as Jung and Rogers have significant points of contact.

Hall and Edwards (1996) point to several studies that support the notion that psychological maturity and spiritual maturity are linked. Shakelford (1978) compared biblical and object relations understandings of dependence and concluded that the processes involved in mature dependence on God are similar to those involved in mature dependence from an object relations

perspective. Carter and Barnhurst (1986) argued that people relate to God and to other people through the same psychological mechanisms. Additionally, four empirical studies have found positive correlations between God image and level of object relations development (Brokaw and Edwards, 1994), God image and object relations developmental level and spiritual maturity (Hall and Brokaw, 1995), and God image and object relations developmental level and self concept among psychiatric patients (Tisdale, Brokaw, Edwards, & Key, 1993).

Having established the theological and psychological foundation of a theory of spirituality, Hall and Edwards (1996, 2002) turn to the development of the theory itself. The authors propose a two-dimensional theory including awareness of God and quality of relationship with God. The first dimension, awareness, is grounded in the theological position that any relationship with God includes some type of communication with God. spiritual maturity along this dimension is a growing “awareness of God’s responses, and an ability to listen to God, to notice his presence, and to savor his responses (Hall and Edwards, 1996, p. 237).” This dimension was not designed to measure the relationship between object relations and spiritual maturity, but is assumed to be a necessary prerequisite of spiritual maturity.

The second dimension of Hall and Edwards’ theory is quality of relationship with God. This dimension was designed explicitly to measure the relationship between spiritual maturity and object relations theory. Hall and Edwards assess three “levels” of spirituality. These levels are not hierarchically arranged, so each factor will be called “domains” for purposes of the current study. The three domains hypothesized were unstable, grandiose and realistic acceptance. A person with an unstable (or instability) type of spirituality may be characterized by a tendency to vacillate between extremely positive and extremely negative images of God, a chaotic relationship with God, and frequent feelings of abandonment.

A grandiose style of relating to God may be somewhat narcissistic. The person is “preoccupied with grand fantasies, crave[s] attention, and attempt[s] to present themselves as better than others (Hall & Edwards, 1996, p. 237).” God becomes important only to the extent that he supports the person’s self esteem, provides protection, and provides for their needs. Thus, the individual focuses not so much on the relationship itself, but on the benefits he or she derives from it.

Realistic Acceptance is characterized by differentiating between the self and other, integrating good and bad qualities, and maintaining long term relationships. These people have the ability to acknowledge and express both pleasant and unpleasant emotions, deal with disappointment in God in a productive manner that maintains the relationship, and value their relationship with God for its own sake rather than the benefits they derive from the relationship.

The relationship between religion, spirituality, and psychological well-being will be discussed in the following section.

### **Psychological Well-Being**

A major movement in professional psychology during the past decade has been positive psychology. This movement, spearheaded by former American Psychological Association president Martin Seligman (2000), questions the almost exclusive focus within psychology on psychopathology. Rather than focus on questions such as *Why are depressed people depressed?* or *What are effective treatments for anxiety?*, a positive psychologist prefers to ask questions such as *What makes highly successful people so successful?* or, more generally, *What are the traits of individuals who seem to be functioning best in life?* A positive psychologist does not say that the former questions are not important and should not be studied; rather, in the same spirit of Antonovsky above, the positive psychologist says that the exclusive focus on pathology to the

exclusion of well-being is both a detriment to the discipline of psychology's original purpose and a terrible disservice to the larger society.

From a philosophical viewpoint, the ultimate question posed by positive psychology becomes *What is the good life?* This question has been addressed by every major philosopher/ethicist/ theologian from the time of Aristotle. In our own time, psychology has attempted to address this question primarily in two ways. The current construct with the longest history is that of subjective well-being (SWB). Ed Deiner (1984) has been at the forefront of the subjective well-being, or happiness, research frontier. Deiner, Lucas, and Oishi (2002) define subjective wellbeing as "a broad concept that includes experiencing pleasant emotions, low levels of negative moods, and high life satisfaction (p. 63)." Rooted in Utilitarian philosophy, subjective well-being focuses on the individual's satisfaction with his or her life and the theoretical relative balance of pleasant over unpleasant life events one experiences.

Research to date has focused on the question *Who is happy?* This body of research has grown out of the work of Wilson (1967) who proposed that the happy person is "young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married...with high self-esteem, job morale, modest aspirations, of either sex and a wide range of intelligence (p. 294)." The findings indicate that people who are happiest are married, religious, extraverted, and optimistic (see Deiner, 1999 for a thorough review of the SWB literature). These findings have held up in cross-cultural studies. However, there are some correlates of happiness that seem to be more culture-specific or simply do not lend themselves to formulaic statements. Gender differences are a case in point. Women tend to report the same mean level of SWB as men, but, contrary to early formulations of SWB, women also tend to report more extreme scores on both positive and negative affect. Self-esteem has been found to be highly correlated with SWB in

individualistic societies, but not in collectivist cultures. Wealthier nations also tend to have higher SWB, but there is little difference between the SWB of rich and poor within countries. Finally, SWB does not decline, as originally proposed, with age although the aged may experience less positive affect (Deiner & Suh, 1998).

The second major psychological approach to the question *What is the good life?* has been offered by Carole Ryff (1989b) and her colleagues. Ryff tackles the bold task of “defining the essential features of psychological well-being (p. 1069).” Ryff is critical of the above line of research on several theoretical grounds. First, she points out that investigators who first noted that positive and negative affect were independent of one another were not interested in defining aspects of positive psychological functioning (Bradburn, 1969). The proposal that a relative balance of positive affect over little negative affect constitutes psychological well-being lacks strong theoretical underpinnings according to Ryff. Ryff’s second critique of the SWB literature is that SWB is based on a dubious interpretation of the Greek word *eudaimonia*. Ryff, quoting Waterman (1984), argues that the ancient Greek understandings of *eudaimonia* and *hedonia* were distinct. The Greeks would have understood the former to indicate all the feelings and behaviors consistent with attaining one’s highest good, whereas the latter would have been understood in a way that is much more closely related to previous conceptions of subjective well-being. Ryff’s evaluation is that hedonism is an inadequate foundation upon which to build a solid theory of psychological well-being. A person can claim to be happy without functioning adequately in a variety of life areas.

From a developmental perspective, Ryff (1989a) also criticizes previous approaches to well-being as it relates to aging on the grounds that wellness is most often defined as the absence of illness. This is also reminiscent of Antonovsky’s critique of the medical field outlined above.

Ryff is concerned when low scores on measures of anxiety, depression, loneliness and the like are used to indicate psychological well-being. The limitation of this approach is that the more positive aspects and attributes of successful adjustment in old age are ignored. Another criticism of previous conceptions of continued well-being in aging populations is their tendency to “limit continued growth and development in the later years (p. 38).” This conception of aging tends to assume that individuals attain a developmental plateau rather than assuming that people continue to grow and develop throughout all stages of the lifespan.

As a source for her own proposal for psychological well-being, Ryff (1989a; 1989b) draws upon developmental theorists such as Erikson (1959), Buhler (1935), and Neugarten (1968, 1973), clinical theorists such as Rogers (1961), Maslow (1968), Jung (1933), and Allport (1961), and mental health literature, particularly Jahoda (1958). Ryff says these theories of psychological well-being have had limited impact for three reasons. First, they have spawned few credible assessment procedures, the criteria for well-being proposed by each is quite diverse, and each has been criticized as being “hopelessly value-laden (Ryff, 1989b, p. 1070).” Ryff, however, undertook the arduous task of distilling these theories, extracting six characteristics of the individual who is functioning well psychologically: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth.

In describing *self-acceptance*, Ryff (1989a) describes a person as having a generally “positive attitude toward oneself and one’s life (p.41).” A psychologically well-functioning individual will also have *positive relations with others*. People high on this domain are described as having elevated social interest, capable of greater capacity to give and receive love, empathic toward those who are not as self-actualized, and generally able to relate to others in a warm and compassionate way. An *autonomous* individual has an internal locus of control, is free to act in

non-conventional ways, values self evaluation over other-evaluation of self, and is self-determining. Individuals possessing *environmental mastery* have a sense of competence in a variety of life areas, a sense of contributing to the world, and the ability to choose or create a living situation suitable to personal needs and desires. *Purpose in life* describes those persons who have successfully navigated the middle adult years and have been able to successfully maintain an inner sense of personal integrity, have the ability to live in the present moment, have a unifying philosophy of life, [and] a “sense of directedness, balance, and integration (p.43).” For Ryff, there is no end point to *personal growth*. At no point in an individual’s personal history should one fail to be open to new experiences, or view themselves as having arrived rather than being continually in process. In humanistic terms, striving toward self-actualization is a lifelong task. It is the six above dimensions that Ryff operationalized in the Scale of Psychological Well-being (PWB).

### **Religion, Spirituality, and Psychological Well-Being**

What are the effects of religion and spirituality on psychological well being? Koenig, McCullough, and Larson (2001) cite numerous studies indicating both the positive and negative effects of religion and spirituality on psychological well-being as well as dysfunction. These authors note, for instance, that religion promotes marital fidelity. Andrews and Withey (1976) found that individuals who are married report greater levels of happiness than those who have never been married, have been divorced, or who are separated. Strawbridge, Cohen, Shema, and Kaplan (1997) found that couples who attended religious services weekly in 1965 were 80% more likely to be married to the same person at a 28 year follow-up than those couples who attended religious services less frequently.

Generally speaking, people who rate their health higher are happier than those who do not (George & Landerman, 1984). High self-rated religious involvement is associated with lower

levels as alcohol and drug abuse (Bell, Wechsler, & Johnston, 1997; Khavari & Harmon, 1982), lower levels of hypertension (Koenig, et al, 1998), heart disease (Oxman, Freeman, & Manheimer, 1995), and longer lifespan (McCullough, Hoyt, Larson, Koenig, & Thoresen, 2000).

Religious communities promote participation in social activities ranging from attendance at services of worship to mission endeavors. Koenig, McCullough & Larson (2001) report that people who participate in religious activities more frequently have “larger support networks, more social contacts, and greater satisfaction with support (p. 100).” The social support networks developed through participation in the religious community contribute to psychological well-being.

Religious participation has also been found to foster a greater sense of optimism and hope. Sethi and Seligman (1993, 1994) found that religious fundamentalists (Orthodox Judaism, Calvinism, and Islam) were more optimistic than members of liberal religious groups (Unitarianism and reform Judaism). This finding was also found for hope, with fundamentalist religious groups espousing more hope than liberal religious groups. The latter finding has been supported by other researchers as well (Herth, 1989; Carson, Soeken, Shanty, & Terry, 1990).

Religion often teaches that life is meaningful and that life events do not happen by chance. The research literature in this area is overwhelmingly in favor of the notion that religious individuals have a greater sense of meaning and purpose in life (Burbank, 1992; Carroll, 1993). These findings have a theoretical connection to both sense of coherence and psychological well-being.

Three limitations to the above studies for the current purpose are of note. The foregoing are indirect indicators of well-being. Marital status, health status, social support, optimism, hope, and meaning and purpose in life may set the stage for psychological well-being but do not, in and

of themselves, constitute psychological well-being. Secondly, while the vast majority of the research has found positive relationships between religious involvement and mental health, there are a few exceptions (for example, see Moberg, 1984). A third limitation is one of measurement. The studies above have not operationalized religiousness, religious participation, and well-being consistently. Therefore, it is difficult to draw broad conclusions. Nevertheless, these studies do lend support to the notion that spirituality and psychological well-being are positively related.

A somewhat more direct route of measuring well-being is through measuring the absence of pathology. Analogous to the assumption in medicine that the absence of illness defines health, a notion rejected by both Antonovsky (1987) and Ryff (1989a), is the notion that the absence of mental dysfunction defines psychological well-being. The definitional debate notwithstanding, an important question becomes *Are people with strong religious values less prone to psychological dysfunction?* Koenig, McCullough, and Larson (2001) reviewed the literature on depression and drew five conclusions. One, Jews and people with no religious affiliation are more likely to experience depression and depressive symptoms. Two, people who are active in their religious communities and value their religion for intrinsic reasons are at reduced risk for depression; however, people with low involvement in their religious communities and who value religion for extrinsic reasons are more likely to experience depressive symptoms. Three, not all measures of religious involvement are equally predictive of depressive symptomology. Involvement in organizational religious activities and intrinsic religious commitment are more likely to buffer the individual against depression. Religious coping is an effective means of helping individuals deal with stress. Finally, “prospective cohort studies and quasi-experimental research all suggest that religious or spiritual activities may lead to a reduction in depressive symptoms...(p. 135).”

Koenig, McCullough, and Larson (2001) also found an inverse relationship between suicide, suicidal behavior, suicidal ideation, and tolerant attitudes toward suicide and religious involvement (frequency of attendance, frequency of prayer, and degree of religious salience). They also concluded that there is a weak inverse relationship between religion and anxiety. This research is difficult to interpret because it is anxiety that might actually lead an individual to engage in religious activities such as prayer. Prayer can be seen as a religious coping strategy.

In sum, the research supports the idea that religion has an inverse relationship with depression, suicide, and anxiety. Again, that a person is not depressed, suicidal, or anxious does not necessarily mean that he or she is functioning well psychologically. That a person is not anxious or suicidal does not indicate that the person is living life joyfully to the fullest. Absence of negative functioning does not necessarily imply positive functioning.

### **Clergy Well-Being**

Hall (1997) reviewed the scant clergy well-being literature. He categorized the literature along six dimensions: emotional well-being, stress and coping, marital/divorce adjustment, family adjustment, burnout, and impairment. Hall draws several conclusions from his review of the literature:

(a) the most frequent difficulties experienced by pastors are anxiety, disappointment, feelings of inadequacy, spiritual dryness, stress, frustration, lack of time, fear of failure, loneliness, and isolation; (b) pastor's emotional well-being is positively related to vocational congruence; and (c) low self-concept, low degree of satisfaction in relationship with God and self-criticism are associated with higher degrees of trait anxiety (243).

Hall goes on to note a significant literature of psychological impairment based in a psychoanalytic tradition which is not directly related to this project.

In sum, the clergy well-being literature suffers from the same limitations mentioned earlier related to well-being literature in general; namely, the assumption is made that the absence of

pathology implies well-being. Thus, one of the distinguishing marks of the current project is to examine a model of well-being, rather than pathology, in a ministerial population.

### **Questions and Hypotheses**

The primary question of this project is *What is the state of psychological well-being among clergy?* One might expect that religious leaders fare better than religious lay people psychologically because they avail themselves of those aspects of religious life that are known to indirectly effect psychological functioning, i.e., social support. Previous research indicates that sense of coherence and religion/spirituality contribute to psychological well-being. Previous studies, however, have operationalized religion/spirituality by measuring religious service attendance, religious belief, and practice. No connections have been made between spiritual maturity as measured by the Spiritual Assessment Inventory (SAI) and Ryff's Scale of Psychological Well-being (PWB). Previous research has operationalized psychological well-being as happiness and life satisfaction, utilizing Deiner's Subjective Well-being construct. *Hypothesis 1, based on previous related findings and current theoretical considerations (outlined above), is that both sense of coherence and spiritual maturity will contribute to the psychological well-being of clergy.* Hypothesis 2 flows from the first: *Members of the clergy will fare better psychologically when compared to a non-clergy group.*

A second question considered in this project is *What is the relationship between spiritual maturity, sense of coherence, and psychological well-being?* Individuals who are spiritually mature are both aware of God's presence and well adjusted in their relationship with God. Antonovsky argues that there are multiple sources for sense of coherence, but that it is sense of coherence that has a direct affect on physical health and, by extrapolation, psychological health outcomes. *Hence, hypothesis 3 is that sense of coherence mediates the relationship between spiritual maturity and Psychological well-being.*

## CHAPTER 3 METHODS

### **Participants**

Participants were United Methodist clergy from three Southern conferences and students from the undergraduate research pool at the University of Florida. An email list containing 1745 names of clergy with working email addresses was obtained from United Methodist Church Conference websites in the Southern United States. Participants were solicited through electronic mail. The solicitation email message contained a request for participation as well as the link to the website. Clergy participants were not compensated; student participants received course credit for participation. Ministers from the United Methodist Church were selected for study because of the author's personal interest in this group and because of the readily availability of contact information for this group.

Two hundred twenty-one student participants were solicited through the undergraduate research pool at the University of Florida. Students were directed to the data collection website and followed the same procedure outlined above. Students received one point of participation credit as a part of their class assignments. Demographic characteristics for clergy and student groups are shown in Table 3-1.

Data was also collected regarding clergy member's thoughts about leaving the ministry in the past and currently. Results are shown in Table 3-2.

### **Measures**

#### **Sense of Coherence**

The Sense of Coherence Scale was originally entitled The Life Orientation Questionnaire, but is popularly referred to by the former (Antonovsky, 1993). The instrument was created by Antonovsky in order to test his sense of coherence construct. There are two versions of the Sense

of Coherence Scale: SOC-29 and SOC-13. In order to save time and forestall participant fatigue, the SOC-13 was utilized for this project. The psychometric properties of the SOC-13 are discussed here if available, unless otherwise noted.

The reliability of the SOC-29 has been supported by several studies noted by Antonovsky (1993). Antonovsky reports average Cronbach alpha coefficients of eight published studies of .81, three theses or dissertations of .85, and fifteen unpublished papers of .88. Concerning the SOC-13, the average Cronbach's alpha for five unpublished studies was .82, and for 4 theses and dissertations .81. It should be noted that these studies sampled a variety of cultures, but that the consistently high alpha levels suggest a cross-culturally relevant instrument.

Test-retest reliability has been supported in a variety of cultures for the SOC-29. However, the only test-retest correlation reported by Antonovsky for the SOC-13 was .77 for patients at a veteran's hospital in the United States (six month retest period). For the SOC-29, test-retest correlations range from .41 (one-year medical student sample) to .86 (Serbian teacher training students after one year).

Antonovsky (1993) reported several studies assessing the criterion validity of the SOC-29. Positive relationships have been found between SOC and internal locus of control (.44), self-esteem (.63, SOC-13; .49), and hardiness (.50). Negative correlations have been found between SOC and trait anxiety (-.61; -.69; and -.75, SOC-13).

Antonovsky (1993) also reported correlations with health and psychological well-being measures. Antonovsky reported correlations between SOC and general well-being (.62), 6-month prediction of morale (.71), quality of life (.76), and life satisfaction (.54). Antonovsky also reported negative correlations between SOC and psychosomatic symptoms (-.70), psychotic symptoms (-.59), and emotional distress (-.63). Other low correlations reported by Antonovsky

were generally consistent with the expected direction. Another interesting feature of these correlations is their cross-cultural nature. Samples were drawn from the United States (morale, emotional distress, and general well-being), Israel (life satisfaction), Sweden (quality of life, psychosomatic symptoms, and psychotic symptoms).

Antonovsky also gives normative data for the SOC-13 with college faculty and undergraduates, minority homeless women, and male patients at U.S. veteran's hospitals. Other norms are given for populations outside the U.S., but are not discussed here. For faculty in the United States, male faculty mean scores for the SOC-13 were 66.7 with female faculty scoring 66.4. The standard deviation (SD) for male and female faculty were 9.8 and 10.6, respectively. A sample of 55-year old male Veteran's Administration Hospital patients had a mean score of 61.9 and a SD of 17.8. An undergraduate sample in the United States had mean scores of 58.5 with a SD of 12.1. Finally, a sample of minority homeless women in the United States had a mean score of 55.0 with a SD of 0.7. One would expect the clergy sample to score more similarly to faculty samples given similar social and economic status. In sum, the SOC-13 is a thirteen-item questionnaire utilizing a 7-point Likert scale. The scale has demonstrated acceptable reliability and validity in multiple international studies. The questionnaire was used to operationalize Antonovsky's construct sense of coherence.

### **Spiritual Assessment Inventory**

Hall and Edwards (1996) report the results of two exploratory factor analytic studies that support the theoretical model they proposed. The results of the two studies revealed the same factor structures, therefore, only the results of the second study are included here; for details concerning the first study, see Hall and Edwards (1996). A five factor solution was obtained which they labeled (in descending order of Eigenvalues) instability, defensiveness/disappointment, awareness, Realistic Acceptance, and grandiosity. Only those items with factor

loadings exceeding .30 were retained. As expected, there were some moderate correlations between the awareness and Realistic Acceptance subscales (.33) and awareness and instability subscales (-.33). Cronbach's alpha was used to test the reliability of each scale with values ranging from .91 (defensiveness) to .52 (grandiosity). Reliability Alphas for the current student are reported in Table 4.2 (p. 51).

In a follow-up study (Hall & Edwards, 2002), confirmatory factor analysis was used to clarify the factor structure and to test the validity of the Spirituality Assessment Inventory (SAI). Five factors again emerged from the data (again, in descending Eigenvalue order): awareness, defensiveness (renamed disappointment due to content homogeneity), grandiosity, Realistic Acceptance, and instability. Reliability was again calculated using Cronbach's Alpha; values ranged from .95 (awareness) to .73 (grandiosity). Additionally, correlations with the Bell Object Relations Inventory (BORI; Bell, Billington, & Becker, 1986), the Spiritual Well-being Scales (SWBS; Ellison, 1983), and the Intrinsic/Extrinsic-revised Subscales (I/E-R; Gorsuch & McPherson, 1989) generally support the external validity of the SAI.

In a second study reported by Hall and Edwards (2002), a set of impression management (IM) items were added to the protocol. A principle axis factor analysis revealed six distinct factors supporting the previous five-factor solution and confirming the homogeneity of the IM items. Cronbach's alpha for the IM subscale was .77.

In conclusion, the SAI is a 47-item that measures Hall and Edwards' (1996) model of spirituality along two dimensions: awareness and quality. The quality dimension has three factors: Realistic Acceptance, instability, and grandiosity. The disappointment scale is viewed as a validity scale in that if a person never or rarely endorses items that indicate disappointment with God, this may represent a defensive pattern of responding. In light of the previous

discussion, this pattern of responding may represent illusory spiritual health. Finally, the impression management items serve as an additional validity check. When controlling for IM, the intercorrelations between the five previous scales dropped, thereby increasing the heterogeneity of each scale.

### **Scale of Psychological Well-being**

Ryff (1989b) developed the PWB to operationalize the aforementioned six domains of psychological functioning. Item-to-scale correlations were conducted with theoretically derived items. Items loading on two or more scales or loading more highly with a scale other than the theoretically derived scale were eliminated. After the total number of items per scale was reduced to 20, the internal consistency coefficients ranged from .86 (autonomy) to .93 (self-acceptance). Six-week test-retest reliability coefficients ranged from .81 (environmental mastery and personal growth) to .88 (autonomy). Measures of internal consistency for the current study can be found in Table 4.2 (p. 51).

Perhaps, the most significant findings were age and gender differences. Ryff conducted a multiple analysis of variance (MANOVA), utilizing follow-up analysis of variance (ANOVA) to determine the location of significant differences. Along the *personal growth* dimension, significant differences were found between older adults and both young and middle adults with older adults scoring lower in each instance. Older adults scored significantly lower than middle adults along the *purpose in life* dimension. Young adults scored significantly lower than both middle and older adults in *environmental mastery*. Finally, young adults also scored lower than middle adults in *autonomy*. These results indicated that individuals in middle age (mean age of 49.85) function better than young adults (mean age of 19.53) with a plateau or decline in functioning into older adulthood (mean age 74.96). It is of note that there are no significant age differences for the domains of self-acceptance and positive relations with others.

A significant gender difference was also found. Women tended to score higher on the positive relations with others domain than did men,  $F(1, 315) = 17.64, p < .001$ . There were no Gender by Age interactions.

One possible criticism of Ryff's study is that the sample was drawn from a middle class, well-educated sample that did not represent the general population of the United States. In an effort to broaden the generalizability of the PWB, Ryff and Keyes (1995) conducted a follow-up study with a larger, nationally representative sample. The primary draw-back of this study was that only three of the original 20-items from each scale were used. However, all items loaded strongly and positively with their own scale. Scales, as predicted, were low to moderately correlated (.13 to .46). Age differences previously reported were supported in this study with two exceptions. The autonomy scale showed age increments from young to middle adulthood only, rather than an incremental increase throughout the three studied groups. Previously, no age differences were found in positive relations with others; however, older adults scored higher than both middle and young adults.

Utilizing confirmatory factor analysis, Ryff and Keyes (1995) tested several models to determine the best model for the data. They determined that a "super-factor" model was the best fit ( $\chi^2 = 378.7, df = 129, AGFI = .89, BIC = -166.04$ ). As such, the authors conclude that the six factors originally proposed "are a function of, or are caused by, another latent construct (p. 722)" which the authors label *well-being*.

In summary, the 54-item Scale of Psychological Well-being is a derivative of a larger 84-item measure that has proven psychometric properties. The 54-item version was employed in this project in order to address participant load and fatigue. The instrument contains six subscales: self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life,

and personal growth. The measure was used to operationalize Ryff's (1987) conception of Psychological well-being.

### **Stress in General Scale**

The Stress in General Scale (SIG) is a 15-item scale measuring work-related stress. Respondents are asked to rate the words or phrases using the 3-choice format of 'yes,' 'no,' or '?' if that particular word or phrase describes their job. The SIG contains two subscales: pressure and threat. The pressure scale contains items such as "demanding" and "hectic," whereas the threat scale includes items such as "nerve-racking" and "overwhelming." The coefficient alpha is .88 and .82 for the pressure and threat scales respectively. Measures of internal consistency for the current study can be found in Table 4.2 (p. 51). The factors had an intercorrelation of  $\alpha = .61$  which suggests some overlap in the two scales.

Evidence of convergent validity for the pressure scale was demonstrated through correlations with the time pressure subscale of the Job Stress Index ( $r = .52$ ). Evidence of divergent validity was demonstrated through correlations with general job satisfaction ( $r = -.47$ ). Validity evidence for the SIG needs further research and clarification.

### **Procedure**

Clergy participants were solicited through electronic mail. 1745 usable email addresses were collected through the websites of three United Methodist Conference in the South. 257 usable surveys were completed. The participation rate of all those solicited was 14.7%. Solicitation emails directed participants to the data collection website. The first screen contained the informed consent document. By continuing beyond the informed consent page, participants agreed to participation. Participants were asked to fill out a brief demographics questionnaire followed by the Sense of Coherence Scale, the Spiritual Assessment Inventory, the Scale of Psychological Well-being, and the Stress in General Scale. Participants were randomly directed

to one of four orders of presentation based on a Latin Square design. Participants completed the questionnaires in one sitting as responses could not be saved for a future session. After submitting their responses, participants were directed to a debriefing page containing more information about the study as well as contact information for the investigators.

### **Analyses**

The Sense of Coherence Scale (Life Orientation Questionnaire) yields a global score with continuous data. The Spiritual Assessment Inventory yields scores in six domains with continuous data for each domain. The Scale of Psychological Well-being yields scores in six domains with continuous data within each scale. The Stress in General Scale yields two scores with continuous data.

In order to examine hypothesis 1, that *sense of coherence and spiritual maturity will contribute to psychological well-being*, a series of six regression models were developed. The global SOC score, as well as the six domains of the SAI. The six Psychological Well-being domains of Self Acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and Personal Growth were entered as dependent variables. The series of six regression models was justified in that the primary interest of the researcher is the examination of each dependent variable separately rather than each dependent variable simultaneously. Regression equations were developed for both clergy and student groups as well as an aggregate group containing both samples.

In order to examine hypothesis 2, *Members of the clergy fare better psychologically when compared to a non-clergy group*, a series of six analysis of covariance were conducted. Clergy and Students were entered as factors and age served as the covariate.

In order to examine hypothesis 3, that *sense of coherence mediates spiritual maturity and Psychological well-being*, regression models including awareness of God and instability as

dependent variables, sense of coherence as a mediating variable, and each of the six measures of psychological well-being as independent variables were developed. The bootstrapping procedure developed by Preacher and Hayes (2004) was used to estimate the size of the indirect effects. This procedure was carried out in order to test the significance of the mediated effect as suggested by Baron & Kenny (1986), Frazier, Tix, & Barron (2004), and Kenny, Kashy, & Bolger (1998). The estimates are based on 1000 random samples, with replacement, from the original data. The significance tests are based on 99% confidence intervals for the size of each indirect effect derived from the bootstrapped estimates.

Table 3-1. Clergy and student demographic information

	Clergy	Students
Mean Age	50.9	19.2
Gender		
Male N	205.0	82.0
Female N	52.0	138.0
Ethnicity		
Caucasian	243.0	157.0
African American	10.0	25.0
Asian-American	0.0	17.0
Native American/Pacific Islander	0.0	2.0
Multiple Ethnicities	3.0	20.0
Marital Status		
Never married	9.0	214.0
Married	209.0	1.0
Divorced	8.0	1.0
Widowed	3.0	0.0
Remarried	25.0	0.0
Children		
Mean number of children	2.3	0.0
Mean number of children living at home	1.0	0.0
Mean hours spent at work/school	50.2	27.3
Mean hours spent with friends/family	19.0	23.2

Table 3-2. Clergy responses to ministry related questions.

	Thoughts of leaving Ministry	
	Past (%)	Current (%)
I've never considered leaving the ministry.	30.0	NA
I am not considering leaving the ministry.	NA	78.6
The thought has (recently) crossed my mind.	41.2	14.0
I have (am) actively pursued (pursuing) information about other professions.	9.7	1.6
I have pursued (am pursuing) contacts with non-ministry-related employers.	3.5	.8
I have interviewed (am interviewing) with employers outside the professional ministry.	1.9	0
I considered (am considering) a job offer outside the professional ministry.	2.3	0
I left, but eventually returned to the professional ministry.	6.6	NA
I already have plans to leave professional ministry.	NA	2.3
I currently work outside the professional ministry.	4.3	2.3
No response.	.4	.4

## CHAPTER 4 RESULTS

### **Descriptive Statistics**

The question arises as to how the mean scores for the current sample (shown in Table 4-1) compare with those found in the literature. Antonovsky (1998) reports the results of several studies using the SOC-13. One study of University faculty in the United States, male and female faculty members scores 66.7 and 66.4, respectively. Carling, Hill, and McWey (2004) reversed scored the SOC-13 obtaining a mean score of 18.1 in their study of clergy and their spouses. Thus, a lower score indicates greater sense of coherence. Reverse scoring the results of the current study yields a means of 30.0. Hall and Edwards have not reported normative data for the Spiritual Assessment Inventory. Stanton and Balzer's (2001) report in their original study means for the pressure and threat domains of the Stress in General Scale of 13.9 and 9.24, respectively. Results of this study indicate that this sample scored lower on the two domains of the Stress in General Scale. Normative data for the Spiritual Assessment Inventory is still in the process of development; this study can be conceived of as a contribution to that effort. Similarly, I was unable to locate any published studies utilizing the 54-item version of the Scale of Psychological Well-being, thus making mean comparisons meaningless.

### **Preliminary Analyses**

The following analyses were conducted in order to test the assumptions underlying multiple regression analyses used to examine the data. Tabachnick and Fidell (2001), citing Green (1991), give two rules of thumb concerning the ratio of cases to number of independent variables.  $N \geq 50 + 8m$  ( $m$  is number of independent variables) and  $N \geq 104 + m$  are suggested rules of thumb for testing multiple regression and individual predictors, respectively. They further suggest calculating  $N$  both ways and using the larger of the two numbers to estimate the

number of cases needed to perform the operation. In this project, nine independent variables were entered into the regression models (Sense of Coherence total score, awareness mean, disappointment mean, Realistic Acceptance mean, grandiosity mean, Instability mean, impression management mean, and the threat and pressure mean scores from the Stress in General scale). Thus, with sample sizes of 221 students and 257 clergy, the ratio of cases to independent variables was exceeded in both cases (122 case minimum for multiple regression and 113 case minimum for individual predictors).

Multiple regression procedures also assume that there are no outliers among the independent and dependent variables. Skewness and kurtosis was examined for all independent and dependent variables. All dependent variables were within two standard deviations of the mean with the exception of Personal Growth, which was found to be kurtotic,  $z = 4.02$ . The data were also screened for multivariate outliers using Mahalanobis distance. Mahalanobis distance greater than  $\chi^2(10) = 29.588$ ,  $p < .001$ , were considered to be multivariate outliers. The same three cases found to be univariate outliers on the Personal Growth Scale were found to be multivariate outliers when regressed on all six dependent variables. The decision was made to delete the three outliers in this variable because they seem not to be connected to the rest of the sample, transforming the data seems too radical a solution given the small number of outliers and the difficulty of interpreting transformed data. Thus, it is assumed that the deletion of these variables has a negligible influence on the generalizability of the results.

Cohen et al. (2003) note that absence of measurement error in the independent variable is also an assumption of regression. They suggest that standard reliability estimates are the most common approach to assessing measurement error. For this project internal consistency reliability was used to assess measurement error. Cronbach's alphas for all variables for the total

sample, for clergy, and students are reported in Table 4.2. It is generally accepted that Cronbach alpha levels exceeding .70 are appropriate. With the exception of SAI grandiosity, all variables exceeded the .70 Cronbach alpha level.

Absence of multicollinearity and singularity are two additional assumptions of regression. According to Belsley, Kuh, and Welsch (1980) multicollinearity exists when collinearity diagnostics indicate a conditioning index great than 30 and there are at least two variance proportions greater than .50. Conditioning indices ranged from 1.00 to 17.20. In none of the regression models developed was there are conditioning index greater than thirty; therefore, the first criteria for multicollinearity was not met. Tolerances range from .39 to .76. Cohen et al. (2003) suggests that tolerance levels less than .10 indicate problems with multicollinearity. Thus, the independent variables appear to be free of multicollinearity. Additionally, the variance inflation factors (VIF) ranged from 1.31 to 2.57. Cohen et al. (2003) describe a rule of thumb (which they see as too lenient) that VIFs greater than 10 are indicative of multicollinearity. All the above evidence points to a low degree of multicollinearity.

Finally, multiple regression also assumes the residuals are independent of one another and normally distributed. In order to test the independence of residuals assumption a Durbin-Watson D statistic was calculated. D ranged from 1.73 (environmental mastery) to 2.07 (autonomy). Critical values for 100+ cases at  $\alpha = .05$  are  $D_l = 1.57$  and  $D_u = 1.78$ . Because  $D = 1.73$  falls within the critical values, the test is inconclusive. Because the remaining D values fall above the upper critical value, but below  $4 - D_u$  (2.2), it can be concluded that the residuals are independent of one another. An examination of a scatterplot of the regression standardized residuals and regression predicted residuals revealed that residuals were acceptably normally distributed.

## Hypothesis 1

Hypothesis 1 stated that *both sense of coherence and spiritual maturity will contribute to the Psychological well-being of clergy*. In order to test this hypothesis a series of six regression equations were conducted, one for each factor of psychological well-being. Given the definition of spiritual maturity as composed of both SAI dimensions of God awareness and Realistic Acceptance, the results only partially supported the hypothesis. The results supported the hypothesis that sense of coherence and awareness of God contribute to the six dimensions of Psychological well-being. Realistic acceptance, however, did not contribute to a single dimension of psychological well-being. Surprisingly, the SAI dimension of instability was as frequent a contributor to psychological well-being as was sense of coherence. While the hypothesis is concerned only with the clergy group, the researcher also included data describing the student group as well as composite information. For purposes of comparison, only standardized Beta weights are reported. Table 4.3 summarizes the regression models for each dependent variable.

### Autonomy

For clergy, the standardized regression equation predicting PWB autonomy was  $\text{Predicted } Z_{\text{Autonomy}} = .19 Z_{\text{SOC}} + .25 Z_{\text{Awareness}} - .18 Z_{\text{Instability}}$ . 23.6% of the variance in autonomy was accounted for sense of coherence, awareness of God, and instability in one's relationship to God for clergy.

For students, the standardized regression equation predicting PWB autonomy was  $\text{Predicted } Z_{\text{Autonomy}} = .35 Z_{\text{Awareness}}$ . For students, 11.5% of the variance in autonomy was accounted for by awareness of God.

The standardized regressions for the composite of both groups was  $\text{Predicted } Z_{\text{Autonomy}} = .18 Z_{\text{SOC}} + .30 Z_{\text{Awareness}} - .18 Z_{\text{Instability}}$ . In the composite group, 19.7% of the variance in

autonomy was accounted for by sense of coherence, awareness of God, and instability in one's relationship with God.

### **Environmental Mastery**

For clergy, the standardized regression equation predicting PWB environmental mastery was  $\text{Predicted } Z_{\text{Environmental Mastery}} = .38 Z_{\text{SOC}} - .17 Z_{\text{Instability}} - .22 Z_{\text{Threat}}$ . Sense of coherence, SAI instability, and SIG threat accounted for 47% of the variance in environmental mastery among clergy.

Among students, the standardized regression equation predicting PWB environmental mastery was  $\text{Predicted } Z_{\text{Environmental Mastery}} = .47 Z_{\text{SOC}} + .19 Z_{\text{Disappointment}} + .14 Z_{\text{Pressure}} - .29 Z_{\text{Threat}} - .17 Z_{\text{Instability}}$ . Sense of coherence, SAI disappointment, SIB pressure, SIG threat, and SAI instability accounted for 42.5% of the variance in environment mastery among Students.

The composite standardized regression equation predicting environmental mastery was  $\text{Predicted } Z_{\text{Environmental Mastery}} = .44 Z_{\text{SOC Total}} - .25 Z_{\text{Threat}} - .16 Z_{\text{Instability}}$ . Sense of coherence, SIG threat, and SAI instability accounted for 45.9% of the variance in environment mastery.

### **Personal Growth**

For Clergy, the standardized regression equation for Personal Growth was  $\text{Predicted } Z_{\text{Personal Growth}} = .40 Z_{\text{Awareness}} - .23 Z_{\text{Instability}}$ . Awareness and instability accounted for 29.1% of the variance in Personal Growth among Clergy.

For students, the standardized regression equation for Personal Growth was  $\text{Predicted } Z_{\text{Personal Growth}} = .50 Z_{\text{Awareness}} - .26 Z_{\text{Grandiosity}} - .20 Z_{\text{Instability}}$ . Awareness, grandiosity, and instability accounted for 20% of the variance in Personal Growth among Students.

The composite standardized regression equation for Personal Growth was

$$\text{Predicted } Z_{\text{Personal Growth}} = .41 Z_{\text{Awareness}} + .16 Z_{\text{SOC}} + .12 Z_{\text{Disappointment}} - .17 Z_{\text{SAI Instability}}$$

Awareness, sense of coherence, grandiosity, and instability accounted for 28.7% of the variance in Personal Growth.

### **Positive Relations with Others**

For Clergy, the standardized regression equation for positive relations with others was

Predicted  $Z_{\text{Positive Relations}} = .27 Z_{\text{SOC}} + .36 Z_{\text{Awareness}} - .18 Z_{\text{Instability}}$ . Sense of coherence, awareness, and instability accounted for 28.5% of the variance in positive relations with others among Clergy.

For Students, the standardized regression equation for positive relations with others was

Predicted  $Z_{\text{Positive Relations}} = .41 Z_{\text{SOC}} + .27 Z_{\text{Awareness}} + .18 Z_{\text{Disappointment}} + .16 Z_{\text{Pressure}} - .23 Z_{\text{Grandiosity}} - .15 Z_{\text{Threat}}$ . Sense of coherence, awareness, disappointment, pressure, grandiosity, and threat accounted for 33.1% of the variance in positive relations with others among Students.

The composite standardized regression equation for positive relations with others is

Predicted  $Z_{\text{Positive Relations}} = .34 Z_{\text{SOC}} + .22 Z_{\text{Awareness}} + .12 Z_{\text{Disappointment}} - .13 Z_{\text{Grandiosity}}$ . Sense of coherence, awareness, disappointment, and grandiosity accounted for 25.3% of the variance in positive relations with others.

### **Purpose in Life**

For clergy, the standardized regression equation for purpose in life was

Predicted  $Z_{\text{Purpose}} = .28 Z_{\text{SOC}} + .39 Z_{\text{Awareness}} + .17 Z_{\text{Pressure}} - .17 Z_{\text{Instability}} - .13 Z_{\text{Threat}}$ . Sense of coherence, awareness, pressure, instability, and threat accounted for 39.1% of the variance in purpose in life among clergy.

For students, the standardized regression equation for purpose in life was

Predicted  $Z_{\text{Purpose}} = .33 Z_{\text{SOC}} + .26 Z_{\text{Awareness}} + .16 Z_{\text{Pressure}} - .17 Z_{\text{Threat}}$  . Sense of coherence, awareness, pressure and threat accounted for 33.1% of the variance in purpose in life among students.

The composite standardized regression equation for purpose in life was

Predicted  $Z_{\text{Purpose}} = .31 Z_{\text{SOC}} + .25 Z_{\text{Awareness}} + .14 Z_{\text{Pressure}} - .17 Z_{\text{Threat}} - .13 Z_{\text{Instability}}$  . Sense of coherence, awareness, pressure, threat, and instability accounted for 35.0% of the variance in purpose in life among clergy

### **Self-acceptance**

For clergy, the standardized regression equation for Self Acceptance was

Predicted  $Z_{\text{Self Acceptance}} = .29 Z_{\text{SOC}} + .20 Z_{\text{Awareness}} - .24 Z_{\text{Instability}} - .18 Z_{\text{Threat}}$  . Sense of coherence, awareness, instability, and threat accounted for 37.8% of the variance in Self Acceptance among students.

For students, the standardized regression equation for Self Acceptance was

Predicted  $Z_{\text{Self Acceptance}} = .41 Z_{\text{SOC}} + .39 Z_{\text{Awareness}} + .14 Z_{\text{Pressure}} - .20 Z_{\text{Instability}} - .19 Z_{\text{Grandiosity}}$  . Sense of coherence, awareness, pressure, instability, and grandiosity accounted for 37.6% of the variance in Self Acceptance among students.

The composite standardized regression equation for Self Acceptance was

Predicted  $Z_{\text{Self Acceptance}} = .37 Z_{\text{SOC}} + .20 Z_{\text{Awareness}} - .19 Z_{\text{Instability}} - .14 Z_{\text{Threat}}$  . Sense of coherence, awareness, instability, and threat accounted for 38.1% of the variance in Self Acceptance.

### **Hypothesis 2**

Hypothesis 2 stated that *members of the clergy will fare better psychologically when compared to a non-clergy group*. Put differently, mean scores for clergy will be significantly higher on each of the six dimensions of psychological well-being. A series of six Analyses of

Covariance were run, one for each of the measures of psychological well-being, controlling for age as a potential confound.

### **Autonomy**

A one-way analysis of covariance (ANCOVA) was conducted including students and clergy as factors, mean scores on the PWB autonomy subscale as dependent variables, and age as a covariate. A preliminary test of the homogeneity of slopes was conducted, which indicated that the slopes of the two groups on the PWB variable did not differ significantly,  $F(1, 472) = .147$ ,  $MSE = 48.17$ ,  $p = .70$ . The ANCOVA was not significant,  $F(1, 473) = .029$ ,  $MSE = 48.08$ ,  $p = .86$ . Thus, it cannot be said that mean clergy scores on the PWB autonomy scale were significantly different than student scores.

### **Environmental Mastery**

A one-way ANCOVA was conducted under the same conditions outlined above except that the PWB environmental mastery scale was used as the dependent variable. An homogeneity of slopes test was conducted. Results indicated the regression slopes of the two groups did not differ significantly,  $F(1, 472) = .57$ ,  $MSE = 57.74$ ,  $p = .45$ . Again, the ANCOVA was not significant,  $F(1, 473) = .63$ ,  $MSE = 57.69$ ,  $p = .43$ . Mean scores on the PWB environmental mastery scale did not differ between clergy and students.

### **Personal Growth**

The same one-way ANCOVA was conducted with the PWB Personal Growth scale as the dependent variable. Once again, a homogeneity of slopes test was conducted which indicated that the slopes for clergy and students did not differ significantly,  $F(1, 472) = .36$ ,  $MSE = 43.97$ ,  $p = .55$ . Results of the ANCOVA indicated that mean PWB Personal Growth scores for clergy were significantly higher than students,  $F(1, 473) = 7.77$ ,  $MSE = 43.91$ ,  $p = .006$ .

### **Positive Relations with Others**

The dependent variable of PWB positive relations with others was included in a one-way ANCOVA along with group as a factor and age as a covariate. Homogeneity of slopes test indicated that the regression slopes of the two groups were not significantly different,  $F(1, 472) = .04$ ,  $MSE = 64.05$ ,  $p = .85$ . The results of the ANCOVA, however, were not significant,  $F(1, 473) = .79$ ,  $MSE = 63.92$ ,  $p = .38$ . Clergy mean scores were not significantly higher than student mean scores on the PWB positive relations with others.

### **Purpose in Life**

A one-way ANCOVA was conducted including students and clergy as factors, mean scores on the PWB purpose in life subscale as dependent variables, and age as a covariate. A preliminary test of the homogeneity of slopes was conducted, which indicated that the slopes of the two groups on the PWB variable did not differ significantly,  $F(1, 472) = .21$ ,  $MSE = 56.60$ ,  $p = .65$ . The ANCOVA was significant,  $F(1, 473) = 6.71$ ,  $MSE = 56.51$ ,  $p = .01$ . Thus, it can be said that mean clergy scores on the PWB purpose in life scale were statistically significantly higher than student scores.

### **Self-Acceptance**

A one-way ANCOVA was conducted under the same conditions outlined above except that the PWB Self-Acceptance scale was used as the dependent variable. A homogeneity of slopes test was conducted. Results indicated the regression slopes of the two groups did not differ significantly,  $F(1, 472) = .01$ ,  $MSE = 69.50$ ,  $p = .91$ . Again, the ANCOVA was not significant,  $F(1, 473) = 2.68$ ,  $MSE = 69.36$ ,  $p = .10$ . Mean scores on the PWB Self-Acceptance scale did not differ between clergy and students.

### Hypothesis 3

Hypothesis 3 stated that *Sense of coherence mediates the relationship between spiritual maturity and psychological well-being*. In order to test this hypothesis, a series of regression models were developed in which sense of coherence was entered as the mediating variable between God awareness and instability and the six dimensions of Psychological well-being. All betas were reduced when sense of coherence was included in the model, although not all were reduced to zero. Also, the overall indirect effect of sense of coherence was significant with both God awareness and instability and all six domains of psychological well-being as indicated by the finding that the 99% confidence interval in each case did not include zero. Table 4.4 displays the standardized betas for the non-mediated model, the mediated model as well as the upper and lower bounds of the confidence intervals resulting from the bootstrapping procedure described in chapter three.

Table 4-1. Means and Standard Deviations for Clergy and Students

	Clergy		Students	
	M	SD	M	SD
SOC Total	65.70	11.75	55.75	11.78
Spirituality Assessment Inventory				
Awareness	3.87	.76	2.76	1.18
Realistic Acceptance	2.44	1.45	1.71	1.41
Grandiosity	1.83	.47	1.79	.65
Instability	1.44	.45	1.89	.70
Disappointment	1.90	.80	1.92	.91
Impression Management	2.77	.83	2.29	.93
Stress in General				
Pressure	9.43	4.00	6.10	4.53
Threat	5.55	4.62	5.00	4.47
Scale of Psychological Well-being				
Autonomy	41.02	6.70	38.01	7.24
Environmental Mastery	40.95	7.80	37.33	7.57
Personal Growth	46.75	6.01	41.96	7.26
Positive Relations w/ Others	43.34	7.41	41.79	8.63
Purpose in Life	44.74	7.13	41.14	7.91
Self-acceptance	44.09	7.45	39.79	9.29

Table 4-2. Measures of internal consistency (Cronbach's alpha) for Independent and Dependent Variables for total sample, Clergy and Students

Measure	Total		Clergy		Students	
	Number of Items	$\alpha$	N	$\alpha$	N	$\alpha$
Life Orientation Questionnaire	13	.88	218	.86	170	.85
Spirituality Assessment Inventory						
Instability	9	.78	257	.72	221	.77
Disappointment	7	.90	257	.89	221	.90
Grandiosity	7	.65	257	.58	221	.73
Awareness	19	.97	257	.94	221	.98
Realistic Acceptance	7	.84	257	.81	221	.86
Impression Management	5	.76	257	.72	221	.78
Stress in General: Pressure	7	.82	254	.76	213	.82
Stress in General: Threat	8	.81	251	.80	211	.82
Scale of Psychological Well-being						
Autonomy	9	.74	248	.72	218	.73
Environmental Mastery	9	.78	243	.78	210	.76
Personal Growth	9	.73	251	.70	211	.68
Positive Relations	9	.79	244	.76	211	.81
Purpose in Life	9	.78	241	.75	213	.78
Self-acceptance	9	.85	249	.82	210	.85

Table 4-3. Standardized Beta weights for Psychological Well-being Regression Equations

	SOC Total	SAI Awareness	SAI Realistic Acceptance	SAI Grandiosity	SAI Instability	SAI Disappointment	SAI Impression Management	SIG Pressure	SIG Threat
Aggregate									
Autonomy	.18	.30			-.18				
Environmental Mastery	.44				-.16				-.25
Personal Growth	.22	.37			-.23				
Positive Relations	.34	.22		-.13		.12			
Purpose in Life	.31	.25			-.13			.14	-.17
Self- acceptance	.37	.20			-.19				-.14
Clergy									
Autonomy	.19	.25			-.18				
Environmental Mastery	.38				-.17				-.22
Personal Growth	.16	.38			-.18				
Positive Relations	.27	.36			-.18				
Purpose in Life	.28	.39			-.17			.17	-.13
Self- acceptance	.29	.20			-.24				-.18

Table 4-3., continued

		Students				
Autonomy		.35				
Environmental Mastery	.47			-.17	.19	-.29
Personal Growth	.19	.43	-.24	-.23		
Positive Relations	.41	.27	-.23		.18	.16
Purpose in Life	.33	.26				.16
Self- acceptance	.41	.39	-.19	-.20		.14

Note. Only those standardized beta weights with  $p < .05$  are presented.

Table 4-4. Standardized Betas for the non-mediated and mediated regression models and upper and lower bounds of confidence intervals

Awareness of God				
	$\beta$	$\beta$ (SOC in model)	Lower Limit 99% CI	Upper Limit 99% CI
Autonomy	.25	.14	.39	1.09
Environmental Mastery	.27	.05	1.10	2.22
Personal Growth	.37	.25	.40	1.06
Positive Relations	.26	.10	.71	1.60
Purpose in Life	.38	.21	.74	1.59
Self-acceptance	.32	.12	1.00	2.01
Instability				
Autonomy	-.27	-.15	-.2.33	-.77
Environmental Mastery	-.39	-.15	-4.16	-2.02
Personal Growth	-.34	-.21	-2.24	-.83
Positive Relations	-.26	-.07	-3.34	-1.49
Purpose in Life	-.33	-.13	-3.50	-1.56
Self-acceptance	-.40	-.20	-4.05	-1.87

## CHAPTER 5 DISCUSSION

### **General Discussion**

The purpose of this project has been to examine the relationship between sense of coherence, spirituality, and psychological well-being among United Methodist Clergy. This study also addressed the dearth of research on the factors that contribute to the well-being of professional clergy. Results of the study partially supported the hypothesis that spirituality as measured by God awareness and Realistic Acceptance of one's relationship with God, and sense of coherence contribute to the six dimensions of Psychological Well-being. That clergy fare better than a non-clergy group on the dimensions of psychological well-being, hypothesis 2, was largely not supported. Sense of coherence was found to mediate the relationship between spirituality and psychological well-being.

#### **Hypothesis 1**

With regard to hypothesis 1, results were largely supported. As expected, sense of coherence contributed to each domain of psychological well-being among clergy with the exception of Personal Growth. This exception is somewhat counterintuitive when one considers the significant definitional overlap. For instance, Ryff describes high scorers in purpose in life as able to maintain a sense of personal integrity, have a unifying philosophy of life, and a sense of purposefulness. For Antonovsky, personal integrity is impossible without a sense of coherence. A unifying philosophy of life is, for Antonovsky, that which gives life meaning. It is possible to read Ryff's purposefulness and Antonovsky's meaningfulness component of coherence as nearly synonymous. Despite these theoretical considerations, the data did not support the conclusion that sense of coherence contributes to the Personal Growth of clergy (or students). Interestingly, when the total sample is considered, both clergy and students together, sense of coherence does

make a small contribution to Personal Growth. Further research is needed to clarify the relationship between sense of coherence and the psychological well-being domain of Personal Growth.

Likewise, awareness of God contributed to each domain of psychological well-being except environmental mastery. This finding held true for clergy, students and both groups considered together. In this case, however, there are no strong theoretical connections between one's sense of the presence of God and one's ability to arrange one's environment in a desirable manner. In other words, a simple awareness of God's presence does not necessarily lead directly to the skill set needed to order one's surroundings.

While awareness of God and sense of coherence contributed positively to clergy psychological well-being, Realistic Acceptance, or having a stable, broad view of how one relates to God, did not have a similarly salutary effect. Realistic Acceptance, contrary to hypothesis 1, did not contribute to a single dimension of psychological well-being. That Realistic Acceptance did not contribute to psychological well-being of either clergy or students is unexpected given the theoretical import given to the construct. If it is true that individuals relate to God through the same psychological mechanisms by which they relate to other individuals, one may intuitively expect Realistic Acceptance to contribute to the Psychological Well-being dimension of positive relations with others. One might also expect Realistic Acceptance to contribute to Self Acceptance, if one allows the Sullivanian notion that the self is made up of reflected appraisals (Sullivan, 1953). This finding calls into question the interpersonal foundation upon which Hall and Edwards' (1996) interpersonal theory of relating to God is based.

Before concluding that Hall and Edwards' interpersonal theory of spiritual maturity is of no value, however, one must consider the *via negativa*. While the results did not support the

notion that relational stability positively influence one's relating to God, there was evidence to suggest that relational instability does have a deleterious influence on psychological well-being. The SAI qualitative relational dimension of instability detracted from every dimension of psychological well-being for clergy. The quality of one's relationship with God does influence psychological well-being, but the most important qualitative contribution may be the negative influence instability exerts. Said differently, if one wavers between idealizing God and castigating God, psychological well-being may be impaired.

## **Hypothesis 2**

Hypothesis 2 predicted that clergy would fare better psychologically than non-clergy. Clergy scores were significantly higher than their non-clergy/student counterparts on two of the six scales of Psychological well-being: Personal Growth and purpose in life. Clergy and non-clergy scores on the other four scales did not differ significantly. So, while clergy did not score uniformly higher across all domains of Psychological well-being, if there were mean differences between clergy and non-clergy, clergy scored significantly higher than students.

That clergy score high than students on purpose in life is intuitive on two counts. First, Ryff (1989a) defines high scorers on this domain as having successfully navigated the middle adult years and having been able to successfully maintain an inner sense of integrity, having the ability to live in the present moment, having a unifying philosophy of life, and a "sense of directedness, balance, and integration (p. 43). The first quality listed, to have successfully navigated the middle adult years, alone disqualifies the traditional college student from scoring high on this domain. Second, given that age was controlled for in the analysis, the developmental aspect of this domain remained important. On the one hand, one would expect that clergy members who have committed themselves to a particular worldview, philosophy of life, and who have been trained in the transmission of that worldview would find meaning in their personal

lives based on that worldview. Students, on the other hand, are more likely to be at a stage of exploration prior to having committed themselves to a particular set of beliefs and way of being in the world.

Clergy also scored higher than non-clergy on dimensions of God awareness. This result was not surprising given that one might expect religious leaders to have developed a greater sensitivity to the presence of God. Within the Christian tradition, awareness of the presence of God is requisite for leading others' spiritual quest. One of the important aspects of clerical functioning is assisting others in becoming aware of God's activity in the world. It only makes sense that members of the clergy would have this awareness in themselves prior to attempting to leading others on a similar quest.

Clergy apparently do not, however, see their world as more comprehensible, manageable, or meaningful than non-clergy. This is consistent with Antonovsky's assertion that a sense of coherence is not derived from a particular worldview. For Antonovsky, there are presumably an infinite number of ways environmental stimuli may be organized, managed, and given meaning. This said, however, the results of this project are not informative about the actual methods individuals use in organizing, managing, and making meaning. For instance, on the basis of this project, one cannot conclude whether or not a theistic or non-theistic worldview may lead to an individual's increased sense of life's comprehensibility, manageability, and meaningfulness. A question for future projects might be to examine whether certain sets of beliefs, religious or not, tend to enhance one's sense of coherence.

### **Hypothesis 3**

Hypothesis 3 predicted that sense of coherence would mediate the relationship between spiritual maturity and Psychological well-being. This hypothesis can only be supported with regard to the spiritual maturity dimensions of God awareness and instability in one's relationship

with God. In part this result stems from the previous finding that God awareness and instability were the only two spirituality domains found to have a direct relationship with the domains of psychological well-being. While the beta weights did not drop to zero, sense of coherence nevertheless significantly influenced the relationship between spirituality and psychological well-being; thus it can be said that sense of coherence partially mediates spirituality and psychological well-being.

That sense of coherence was found to only partially mediate spirituality and well-being may be accounted for in a variety of ways. First, there is infinite variety in the ways one may comprehend, manage, and give meaning to their lived experience; spirituality is only one means by which an individual may make sense of their world. One person may make sense of the world through economics, another politics, yet another philosophy. Any of these perspectives have the potential to lead one to a meaningful life. Perhaps, spirituality as measured here is not a strong enough predictor of psychological well-being to warrant recourse to a mediating variable. Second, measurement may also be an issue. Perhaps other measures of spirituality or psychological well-being may produce stronger results. Perhaps measures of religious belief and/or behavior may be stronger predictors of both sense of coherence and psychological well-being. Perhaps there are other measures of psychological well-being such as Deiner's (1984) Life Satisfaction Scale or Frisch's Quality of Life Inventory (Frisch, 1992) that may yield a stronger relationship to this particular measure of spirituality. All of these issues may be addressed empirically in future research endeavors.

The results of this study are consistent with previous studies on clergy sense of coherence and well-being. As mentioned in chapter two, only one other study has examined sense of coherence among clergy. Darling, Hill, & McWey (2004) found a large relationship between

sense of coherence and subjective well-being. The results of this study indicated a similarly positive relationship between sense of coherence and the six measured domains of Psychological well-being.

The results of this study were also consistent with findings from previous studies indicating that religious individuals have a greater sense of meaning and purpose (Burbank, 1992; Carroll, 1993). The current study found that the clergy group on average scored higher than the non-clergy group on the Psychological Well-being domain of purpose in life. Future studies may also compare differences between clergy and lay people and religious and non-religious populations.

The results of this study were also congruent with previous study results of sense of coherence and mental health outcomes. Previous studies suggested that higher sense of coherence was related to better adjustment after injury and illness, lower levels of depression, and reduced risk of suicidal behaviors. This study extended these findings to include the notion that sense of coherence positively influences mental health as measured by the Scale of Psychological Well-being.

### **Implications**

This study has theoretical and methodological implications for theory regarding spirituality, sense of coherence, and psychological well-being. There is no consensus on how to best measure spirituality and religiosity. Religion and spirituality have been most frequently cast in either terms of a set of beliefs or a set of behaviors. No general consensus has been reached on the best way to measure religion and spirituality. Earlier I discussed with some hesitation the literature in this area because of this very fact. There is no general consensus in the literature as to whether a certain belief or set of beliefs, such as the belief in a loving, beneficent god, is related to positive mental and medical outcomes or these outcomes are related to a particular

practice or set of behaviors, such as church attendance or prayer. Research seems to support the conclusion that this is not an either/or question, but a both/and question. As stated previously, however, the operationalization of spirituality in this study departs from widely adopted methods of operationalizing spirituality used in most of the prior research on the subject. So, I offer the above interpretation and discussion with the same caveat: While my results are consistent with previous studies of religious life, more research is needed to assess the utility of an interpersonal conception of religion. Hall and Edwards theory of spirituality is an attractive alternative to simple measures of religious behavior and belief because it is grounded in both theology and psychological theory. While their instrument has sound psychometric properties, because of the relative newness of the instrument it has not been utilized in many studies. More research is needed to further evaluate its psychometric properties with a broader range of populations. More research is also needed to assess the instruments utility as both a predictor and criterion variable.

Following Hall and Edwards (2002), I see the SAI as potentially useful for pastors, pastoral counselors and others who care for religiously oriented clients. The SAI may also be potentially useful in working with pastors in developing a strategy for self care. For instance, if a pastor scores high in instability, it may be helpful to that pastor to examine the shifts in relationship between idealizing and criticizing God. This pattern of relating to God may also be present in the clergy member's other relationships; thus, recognition of this theme in the spiritual realm may also prove useful in improving relationships in the temporal realm.

As stated previously, I am not aware of any previous research linking sense of coherence and psychological well-being. Antonovsky originally proposed his theory focusing exclusively on physical health outcomes, while denying its utility for psychological outcomes. Previous studies on the relationship between sense of coherence and psychological health have focused on

the “disease” end of the “ease/disease” continuum. This study opens the door for the possibility that sense of coherence is predictive of positive psychological outcomes, not just the absence of negative (e.g. depression and anxiety) psychological outcomes. In short, a major contribution of this study to the sense of coherence literature is that sense of coherence is an important predictor of positive mental health outcomes (i.e. psychological well-being).

This study also has implications for the study of psychological well-being. First, I chose to look at psychological well-being at the individual domain level rather than at the global level. The reasoning behind this decision was based on practical utility. In practice, knowing an individual’s overall psychological well-being score is a potentially useful index, but lacks the precision necessary to make appropriate interventions in the therapeutic setting. However, knowing the relative and absolute values of an individual’s scores on each of the six domains of Psychological Well-being allows the therapist to make more precise interventions aimed at self-acceptance or skills development, for instance.

A second theoretical implication for Psychological well-being is Ryff’s interpretation of the word *eudaimonia*. E.R. Dodds in his book *The Greeks and the Irrational* points out that characters in Greek mythology were sometimes said to be possessed by external forces or spirits, or *daimon*. However, these forces did not always prompt an individual to act in his best interest. Dodd points out that a person possessed by such a spirit often suffered from mental instability, acted in ways inconsistent who they knew themselves to be, and used poor judgment. These characteristics do not sound like a person who would score high on the Scale of Psychological Well-being. The distinction between the psychological constructs of subjective well-being and psychological well-being is an important one, but one that may go beyond its supposedly Greek

lexical origins. Nevertheless, perhaps a more careful reading of the Greek texts can enlighten our understanding of these psychological constructs.

### **Limitations**

There are, of course a number of limitations to this study. The study is self-report and limited by all the vagaries self-report measures. There was also a self-selection bias in the sampling method. Perhaps the most glaring drawback to the study with regard to the sample is the differences inherent between a group of clergy and a group of undergraduate students. The study did not measure particular religious beliefs of the two groups, which may effect how the two groups responded. The religious affiliation of the students was not assessed. Ethnicity, gender, age, and historical differences are also potentially confounding variables that need further assessment. Also, it is important to note that the results of this study do not indicate that sense of coherence causes psychological well-being. It could be that causality lies in the other direction or that another variable causes each of these two. Likewise, the results of this study do not rule out the possibility that spirituality is related to Psychological well-being. With a different subset of these populations, or perhaps another measure of spirituality or religion, different results may be found. Another potential limitation is reactivity among the participants. A number of potential respondents/participants emailed the investigators with concerns ranging from suspicion of motives to operationalization of constructs. It is impossible to determine the number of potential respondents who shared these concerns and, therefore, did not respond to requests for participation. It is almost equally as difficult to determine how reactive participants were to the study. Some indication of participant reactivity may be inferred, however, from the SAI impression management scale. The impression management scale did not load on any of the regression equations predicting psychological well-being and mean scores did not differ between

clergy and non-clergy samples. This pattern of results tends to indicate a rather low level of reactivity.

### **Future Directions**

This project opens the vista to several potential areas of further investigation. First, there are several avenues for potentially fruitful investigation related to clergy well-being. If one considers psychological well-being as a dependent variable, what are the variables that are the strongest predictors of psychological well-being, especially those variables that are most amenable to psychotherapeutic intervention? Considering psychological well-being as an independent variable, what are the salutary effects of psychological well-being on the clergy member's personal and professional lives?

Another area of investigation that may be of some import is the question of the malleability of sense of coherence. Antonovsky is a social determinist in that he assumed that the cultural forces in which a person finds him or herself embedded exert such a strong influence on the individual that an increase in sense of coherence after entering adulthood is impossible. To my knowledge, there have been no controlled outcome studies directly addressing this assumption. One difficulty in designing such an experiment is that the extant research has not identified those factors that contribute to sense of coherence that are open to manipulation in an experimental setting. In addition to the practical considerations developing a strong enough intervention to move sense of coherence, there are potential ethical dilemmas inherent in the design of such an experiment. For instance, let's assume that there is an infinite array of paths to understanding, managing, and giving meaning to one's life experience, designing an intervention for individuals with disparate worldviews may be next to impossible from an ethical standpoint. For instance, theists and atheists, two broad and mutually exclusive categories, will very likely give different meanings to their life's experiences, while scoring similarly on sense of coherence. Nevertheless,

it is conceivable that the Life Orientation Questionnaire could be included in an assessment battery as a part of a therapeutic outcome study.

Despite the lack of predictive power in this study of the Realistic Acceptance domain of the Spiritual Assessment Inventory, we are hesitant to disregard the potential utility of the instrument or the construct. As stated above, the instrument does have acceptable psychometric properties. It has a strong foundation in theology and psychological theory. The idea that spirituality contributes to well-being is appealing, but questions do remain, such as *What spirituality? Whose spirituality? How will spirituality be measured?*

In sum, the major findings of this study are that spirituality may make a small contribution to psychological well-being, though being mediated through sense of coherence. Sense of coherence makes a large contribution to psychological well-being. Finally, members of the clergy do seem to fare better than non-clergy on some, but not all, domains of Psychological Well-being.

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