Psychological well-being and spirituality: Constituents of successful aging

Dorothy Sheilah Armstrong

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PSYCHOLOGICAL WELL-BEING AND SPIRITUALITY:
CONSTITUENTS OF SUCCESSFUL AGING

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Psychology

by
Dorothy Sheilah Armstrong
September 1999
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ABSTRACT

This study tested a hypothesized relationship between the constructs of psychological well-being as defined by Ryff (1989a) and spirituality as defined by Elkins, Hedstrom, Hughes, Leaf and Saunders (1988). Specifically, it was hypothesized that two dimensions from the Psychological Well-being Scale (PWBS), Purpose in Life and Personal Growth, would be positively correlated with two dimensions from Elkins' Spiritual Orientation Inventory (SOI), Meaning and Purpose in Life, and Mission in Life. A correlational design was used with 255 male and female participants comprising the categories of young adults, (18-29), middle age adults (30-64), and older adults (65+). Two self-administered measures were distributed to community volunteers. Results generally supported the hypotheses: Spirituality variables were significantly predictive of psychological well-being, and the predictive strength of this relationship increased with age.
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INTRODUCTION

The construct of psychological well-being as defined by Ryff (1989a) relies on a synthesis of psychological theories from several branches of psychology into a comprehensive model for successful aging. Ryff's model of well-being is a multidimensional perspective on positive aspects of aging rather than an age decrement model. The well-being measure developed by Ryff (1989b) continues to move psychology toward a positive criteria for successful aging by specifying dimensions of well-being that facilitate adaptation and coping in the aging process. Through repeated research Ryff (1989b, 1991, 1995) has noted declining scores on two well-being markers: Purpose in Life and Personal Growth, from young adulthood through old age, with a significant drop from middle to old age. My interest in the reasons for these age-related changes in specific aspects of well-being has prompted this research.

Much of the descriptive language of Ryff's model for well-being and many of the theories and theorists she embraces in defining well-being are also prominent in the literature on spirituality. According to Ryff (1989a), successful aging includes the element of continued growth across multiple domains, which is accomplished through one's active engagement in the process of development throughout the life-span. A comparable element, the
development of meaning and life purpose through individual commitment, is a component of spiritual maturation (Erikson, 1959; Frankl, 1962; Jung, 1933; Maslow, 1962).

My interest is in this similarity between constructs: specifically where the well-being dimensions of Purpose in Life and Personal Growth parallel specific elements of spirituality. Because Ryff's operational definitions of Purpose in Life and Personal Growth rely on the language of spirituality, it is my belief that Ryff's construct of psychological well-being is measuring elements of spirituality. The links between well-being and spirituality are particularly relevant in the context of aging, since there is some evidence showing an increase in the spirituality of the elderly, especially among older women (Sinnott, 1994). Therefore, an aim of this study is to make explicit what is implied in Ryff's studies of well-being and aging: the dimensions of Purpose in Life and Personal Growth from her measure of Psychological Well-being reflect dimensions of spiritual maturity.

Psychological Well-Being

Theoretical Considerations

The construct of psychological well-being (Ryff, 1989a) is drawn from theories of life-span developmental psychology (e.g., Erikson, 1959, Buhler, 1968, and Neugarten, 1968), clinical theories of personal growth (e.g., Maslow, 1971, Rogers, 1961, and Jung, 1933), and
concepts from the mental health literature (e.g., Jahoda, 1958). The blending of these life-span theories outlines the developmental tasks of middle and old age. Merging these theories with clinical perspectives provides additional descriptions of the progression of positive psychological functioning in continued personal development across adulthood. In particular, Jahoda's criteria for positive mental health enables an interpretation of psychological well-being as a process of positive growth and development. The integration of these diverse perspectives is the theoretical basis for Ryff's model of successful aging. Moreover, because she draws on the work of theorists who define well-being in terms of positive psychological functioning, rather than on those who define well-being as the absence of illness, Ryff's model represents an important shift in our criteria for well-being in adulthood (Ryff, 1989a).

In incorporating Erikson's psychosocial stage theory of human development into her model of well-being, Ryff speaks of the seventh and eighth stages as being particularly important. Generativity, commitment to future generations, and Integrity, commitment to the self through life review, are viewed as vital developmental tasks that challenge the individual to continue the process of development across the life span:
Only he who in some way has taken care of things and people and has adapted himself to the triumphs and disappointments of being, by necessity, the originator of others and the generator of things and ideas—only he may gradually grow the fruit of the seven stages. I know no better word for it than integrity (Erikson, 1959, p. 98).

Buhler's (1968) concept of basic life tendencies deals with the individual's desire for both change and stability in life fulfillment, or goal fulfillment. Goals themselves are described as the end result of the need to realize potentials. All potentials are recognized through the creative process; creativity generates the goal as well as produces the process of goal attainment. "It is generally acknowledged that man, like all other living beings, is never in complete balance and that this partial or total imbalance is the cause of development" (p. 17). Much like Maslow's description of the final step in psychological growth, Buhler sees the individual who strives toward goal attainment as self actualizing.

The executive processes of middle age (i.e., changes in one's sense of self), and the process of interiority in old age (i.e., decreases in attachment to persons and objects in the external world), as defined by Neugarten (1968) are also developmental components of Ryff's construct of psychological well-being. Executive processes
are those specific personality challenges of middle age: self-awareness, selectivity, manipulation and control of the environment, mastery, and competence. These processes are needed for one to deal with an ever more complex array of family, personal and work-related demands. The demands of middle age give way to those of old age in the process of interiority, turning one's attention to an inward state. Interiority not only allows the individual to become introspective, but also permits one to become less concerned with the restrictions of society.

According to Ryff (1989a), the clinical theorists Jung, Maslow, and Rogers all describe advanced psychological functioning in their individual perspectives on successful aging. Positive functioning in the adult years is seen, primarily, as the development of a unique self, and secondarily, as the continual refinement of the self. Individuation, as Jung termed this phase of development, is the process of psychological differentiation, which results in the development of the individual personality. "In general, it is the process by which individual beings are formed and differentiated; in particular, it is the development of the psychological individual as a being distinct from the general, collective psychology" (1970, p. 448).

Maslow's (1971) concept of a hierarchy of needs culminates with the idea of self actualization. According
to Maslow, once the primary needs of survival are met, the pursuit of self-actualization is an essential quality of the human condition and positive psychological functioning. The pursuit of meaning takes the place of the quest for survival. Maslow believes that we have a cognitive need for knowledge, a "meta-need" for understanding, and claims that "Self-actualizing people are, without one single exception, involved in a cause outside their own skin, in something outside of themselves. They are devoted, working at something...some calling or vocation in the old sense, the priestly sense" (p. 43).

Rogers' (1961) theory of the fully functioning person is derived from his clinical experience, and is defined as the optimal conclusion of therapy. There are three characteristics Rogers identifies in the fully functioning adult: 1) increased openness to experience, 2) increasingly existential living, and 3) increasing trust in the organism as a whole to arrive at the most appropriate behavior in any given circumstance. Thus the individual who is open to experience and who lives fully in the experience of the moment and trusts the self to arrive at the most suitable behavior in each life situation is a fully functioning person. "He is more able to permit his total organism to function freely in all its complexity in selecting, from the multitude of possibilities, that behavior which in this moment of time will be most generally and genuinely
satisfying" (1961, p. 191).

The last component of Ryff's construct comes principally from Jahoda's 1958 work on positive criteria for psychological functioning, which she contrasts with the traditional "absence of illness" criterion. In her analysis of the need for a new definition of mental health, Jahoda points to the variety of definitions ascribed to mental illness, and notes that since the lack of mental illness is seen as the model for mental health, having multiple definitions for illness leaves multiple definitions for health as well. The secondary concept of normality as a model of mental health also proves unsuitable due to the difficulty in defining normality: It would seem, consequently, to be more fruitful to tackle the concept of mental health in its more positive connotation, noting, however, that the absence of disease may constitute a necessary, but not a sufficient, criterion for mental health (Jahoda, 1958, p. 15).

Dimensions of Psychological Well-Being

The criteria for well-being Ryff derives from a synthesis of these concepts consists of six dimensions of positive functioning that are formed into the Psychological Well-Being Scale (PWBS): self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989b). The most common theme among all the psychological theories she
draws from is self-acceptance. Erikson speaks of integrating one's past life into acceptance of the self in his ego integrity stage of development (1982). Jung described accepting both one's feminine and masculine natures in the process of unity of personality in the second half of life (1964). Maslow, in describing the characteristics of self-actualization, called for an acceptance of self, others, and of nature (1962).

A related theme to self acceptance (Ryff, 1989a) and one continually emphasized in psychological literature, is the idea of positive relations with others. Maslow believed self-actualizers were capable of great love and deep interpersonal relationships, more so than those not yet at that stage of development (1970). And Erikson's stages of intimacy and generativity, to be successfully fulfilled, rely heavily on individuals' interactions with others (1982). In Rogers' description of the fully functioning person, he notes the acquisition of a developing trust, both of an individual nature, and between the individual and the surrounding culture (1961).

Prominent in the clinical domain is the concept of autonomy. Individuals operating close to the ideal resist enculturation and demonstrate independent functioning. Neugarten's (1968) concept of interiority allows for the individual to be less concerned with the norms regulating
everyday life, while becoming more introspective of personal needs. Jung believed that the developing adult needed to surpass convention and to resist the laws of the mass (1964). Similarly, Jahoda envisioned autonomy as a significant element in her criteria of positive mental health, believing the degree of autonomy was indicative of the state of the individual's mental health (1958).

*Environmental mastery,* the ability to manipulate and control one's surroundings, and autonomy are related concepts. Neugarten (1968) describes control of the environment as a role of the executive processes in middle age. Middle age is characterized in part by the managing of ever more complex arrangements of activities in all areas of endeavors. Buhler's basic life tendencies uses the concept of a creative force that allows advancing towards one's goals in the world by manipulating the environment through both physical and mental activity. Choosing one's environment to suit one's temperament and capacities is presented by Jahoda as a requirement of mental health (1958).

The final two dimensions of *purpose in life* and *personal growth* are related, in the sense that the first dimension is dependent on the latter for expression. If one is not open to potential expansion of the self, one cannot delve into purpose. Erikson's stage of generativity
describes the purpose in life dimension as being one of production for society rather than the self, "to increase, by whatever is yours to give, the good will and the higher order in your sector of the world" (Erikson, 1978, p. 124). Rogers (1961) described the fully functioning person as living fully in each moment as a consequence of the understanding that each experience is new and unpredictable. Buhler's basic life tendencies describes the creative process of changing the world in midlife, while these goals become turned inward in later life (1968).

The dimension of personal growth is defined by Rogers' (1961) theory of the fully functioning person as one's ability to be open to experience. Maslow defined self-actualization as a process of continued development across the course of one's life (1970). Erikson also defined the latter stages of development as a continuous process of review and integration; as long as one survives, there is new information, both personal and of the world, to integrate into meaning (1982).

Although Ryff (1989a) sees the sixth dimension, personal growth, as an index of optimal psychological development and thus a "step beyond" the ideal behavior defined by the other five dimensions, research using Ryff's six psychological well-being scales has repeatedly
demonstrated declining scores for both the dimensions of purpose in life and personal growth (Ryff, 1989b, 1991, 1995). The pattern of declining scores shared by the subscales purpose in life and personal growth from youth to old age indicates their conceptual similarity and suggests that the dimension of personal growth is a central element of psychological well-being. The dimension of personal growth is defined as the ability to grow, both emotionally and intellectually, across the trajectory of one's life (Ryff, 1989a). The concept of personal growth is a mainstay in the theoretical structure of spirituality, which further suggests that there is considerable overlap between the constructs of Well-being and Spirituality.

Psychology of Spirituality

Religiosity versus Spirituality

The Spiritual Well-Being Section of the 1971 White House Conference on Aging defined spirituality as "the ultimate concern, the basic value around which all other values are focused, the central philosophy of life - whether religious, antireligious, or non-religious - which guides a person's conduct, the supernatural and nonmaterial dimensions of human nature" (Moberg, 1990, p. 6). However, in the Western concept of spiritual development, there are two distinct orientations. One orientation, religiosity, is generally defined in terms of the expression of one's
faith in a divine power through a specific system of belief, "recognition on the part of man of a controlling superhuman being entitled to obedience" through "a particular system in which the quest for the ideal life has been embodied" (American College Dictionary, 1965, p. 103). The other orientation, spirituality, is an existential orientation which has as its core premise the concept of the human drive for meaning (Frankl, 1962). Thus religiosity, the quality of being religious, is described as one's quest for knowledge through involvement with an organized system of belief that is imbued with a sense of the presence of the sacred. Spirituality is described as the pursuit of meaning through individual commitment.

Psychology, while lacking consensus definitions for either religiosity or spirituality, generally defines each in terms of how the individual organizes the quest for meaning. Religiosity is viewed as organized and systematic, while spirituality is described as an individual quest (McFadden, 1996). Although in western cultures religiosity and spirituality are often used as synonyms, it is important to distinguish between the two concepts, since the primary motivation and means of expression of religiosity and spirituality are fundamentally different. "The search for significance
becomes religious only when some conception, experience, or expression of higher powers, transcendent forces, or personal Beings becomes involved in the search."
(Pargament, 1992, p. 205). While psychology for the most part has ignored issues of a religious or spiritual nature in human research, what little has been attempted falls in the realm of religiosity. Moreover, most such research involves the more accessible areas of measurement in religion, such as participation and prayer (e.g. Fowler, 1981), and religious coping (e.g. Park, 1990).

Spirituality is "the motivational and emotional foundation of the lifelong quest for meaning" (McFadden, 1996, p. 164), and compared with religiosity, is much less studied in psychological research. Of the two perspectives, it is spirituality, the existential drive for meaning and purpose, that parallels the theoretics which define Ryff's construct of psychological well-being. In defining the construct of psychological well-being, Ryff refers repeatedly to the concept of continued growth across the life span. Whether Maslow's theory of self-actualization, Jung's ideas regarding individuation and introspection, or Erikson's stages of generativity and integrity, all require continual psychological development. Growth for these theorists equals knowledge acquisition, which is the basis of the psychological definition of
spirituality.

Theoretical Development of a Model of Spiritual Maturity


Spirituality... is a way of being and experiencing that comes about through awareness of a transcendent dimension and that is characterized by certain identifiable values in regard to self, others, nature, life and whatever one considers to be the Ultimate (1998, p.10).

Much like Ryff, they have combined theories to create a psychological construct, spiritual maturity, and have developed a measure, The Spiritual Orientation Inventory (SOI), to assess levels of spiritual maturity. While developed at the same time as Ryff's concept of psychological well-being, spiritual maturity has received less scrutiny and generated less research as a consequence of being on the periphery of psychological acceptance. Spirituality and religiosity have been considered only recently as legitimate research topics, as evidenced by their inclusion in the Handbook of the Psychology of Aging only in its most recent edition (McFadden, 1996).

The theories of Frankl (1962) concern the human drive for meaning, especially as it pertains to the future.
According to Frankl, the individual's quest for meaning is a fundamental drive in human development which allows the transcendence of the given circumstances of one's life. Meaning itself is developed by the individual through dynamic involvement with the context of the present rather than the context of past experience. Since transcendence of the present is the goal of the spiritual quest for understanding, the future and its promise of greater understanding becomes critical to continued development. In other words, one is pulled by the future rather than pushed by the past.

Man's search for meaning is a primary force in his life and not a 'secondary rationalization' of instinctual drives. This meaning is unique and specific in that it must and can be fulfilled by him alone; only then does it achieve a significance which will satisfy his own will to meaning (Frankl, 1962, p. 99).

An explicit theme in Frankl's theory is that one's freedom to make choices is the basis of responsibility. For Frankl, there are three stages of human development, each with its own individual press: the physical dimension (survival), the psychological dimension (development of personality), and the noetic dimension (where reason and conscience reside). It is in the noetic dimension that the quest for meaning is pursued (Dacey & Travers, 1991).
For Jung, spiritual development occurs in two stages, characterized by individuation in the first half of life and introspection in the second half. The goal of early adulthood is the development of a unique personality separate and distinctive from one's parents. In the second half of life there is a preoccupation with a gradual awareness of the need to unify the personality into an organized whole (1933). This is accomplished by discovering a meaning and purpose in life, gaining a perspective on others, determining values, and preparing for death. Nourishing the undeveloped side of life, the masculine in females (animus), and the feminine in males (anima), allows for greater integration of the personality and serves as an introduction to spiritual insight (1933). Jung believed it was imperative in the latter half of life to establish goals that were appropriate for the aging psyche. The purposes of youth, individuation, propagation, and establishing one's self in society, must give way to the concerns of the aged: "Whoever carries over into the afternoon the law of the morning—that is, the aims of nature—must pay for so doing with damage to his soul" (p. 109).

Maslow (1962) defines spirituality as a human phenomenon that is more basic, pre-dates, and is fundamentally different from traditional articulations of religiosity: "We need a validated, usable system of human
values that we can believe in and devote ourselves to (be willing to die for), because they are true rather than because we are exhorted to believe and have faith" (p. 206). Taking a humanistic approach to the understanding of spirituality, Maslow believed that spiritual values have naturalistic meaning and their development is therefore the responsibility of all of mankind. The individual pursuing self-actualization does so as a response to the loss of youthful inexperience and later life preoccupations with societal duty. For Maslow, spirituality is a quest for meaning and purpose which becomes more pressing as the tasks of earlier life eras are achieved (1962).

Dimensions of Spiritual Maturity

As a result of the fusion of concepts of spirituality, a model of humanistic spirituality has evolved. Elkins et al. (1988) defined spirituality as a multidimensional construct with nine components: *transcendent dimension*, *meaning and purpose in life*, *mission in life*, *sacredness of life*, *material values*, *altruism*, *idealism*, *awareness of the tragic*, and *fruits of spirituality*. The resulting measure, the SOI, assesses the level of individual involvement in the various dimensions of spirituality.

The *transcendent dimension* deals with the individual's belief in one's ability to surpass experience. "He or she
believes in an "unseen world" and that harmonious contact with, and adjustment to, this unseen dimension is beneficial" (p. 10). The meaning and purpose in life component addresses one's active involvement in the quest for existential knowledge. Responsibility to live life as a calling, with aim and direction, is the description of the third component, mission in life. Believing all of life to be sacred rather than dichotomizing it into sacred or secular is the definition of sacredness of life. The category of material values speaks about one's understanding of the value of material goods as secondary to the ultimate value of spiritual commodities. Social justice and compassion are the content of altruism, while idealism reflects individual commitment to world betterment. Empathy and mercy are the concerns of the component awareness of the tragic, and the ninth dimension, fruits of spirituality, deals with the effect that being spiritual has on one's life.

Summary and Rationale for Hypotheses

The Journal of Social Issues (1995) dedicated an entire volume to examining issues of religious and spiritual influences on psychological well-being. The authors examined relationships between well-being and spirituality on individual aspects of mental and physical
health, social issues and problems, and in both young and aged populations. The Journal of Social Issues typically deals with such topics, but not in the context of their relationship to spiritual matters (Paloutzian & Kirkpatrick, 1995). Religiosity and spirituality are slowly becoming topics of greater interest in research on well-being.

Ryff's (1989a) model of psychological well-being as described here is a multidimensional construct which emphasizes individual competencies in successful aging. The PWBS, (1989b) assesses levels of competence for each of six independent dimensions of successful aging. The SOI (Elkins et al., 1988) is also a multidimensional construct, designed to assess spirituality distinct from "traditional" religiosity (e.g., Fowler, 1981; Park, 1990). Two dimensions of the PWBS, purpose in life and personal growth, show decreased scores across the life-span, especially from midlife to old age (Ryff, 1989b, 1991, 1995). Ryff describes a high scorer on the dimension of purpose in life as "feels there is meaning to present and past life" and on the dimension of personal growth as "has sense of realizing his or her potential" (Ryff, 1989a, p. 45). Two dimensions of the SOI, meaning and purpose in life and mission in life are similar in language and content to the dimension of purpose in life and personal
growth from Ryff's PWBS. The dimension of meaning and
purpose in life assesses the feeling that "life is deeply
meaningful and that one's own existence has purpose", and
the dimension of mission in life as the feeling that one
has "a sense of responsibility to life, a calling to
answer" (Elkins et al., 1988, p.11). All four dimensions:
purpose in life, personal growth, meaning and purpose in
life, and mission in life, deal with issues of existential
meaning, life purpose, and human potential as they relate
to psychological well-being or individual spirituality.
Since there is so much conceptual overlap in the constructs
of Well-Being and Spirituality, and specifically between
Well-being's dimensions of purpose in life and personal
growth and Spirituality's dimensions of meaning and purpose
in life and mission in life, it appears that Ryff's Well-
being Scale may provide a surrogate measure of spiritual
involvement. Moreover, Ryff has noted in repeated research
(1989b, 1991, 1995) that the scores for the dimensions of
purpose in life and personal growth decline from young
adulthood through old age. I believe an explanation for
the falling scores on the dimensions of Purpose in Life and
Personal Growth may be found, in part, in this relationship
between well-being and spirituality, such that well-being
is supported by spirituality. In other words, age-related
declines on the dimensions of purpose in life and personal growth on the PWBS may not be found in samples where spirituality scores remain high across time.

Study Hypotheses

The goal of this exploratory research is to examine the relationship between the constructs of psychological well-being and spirituality. To do this, we begin by examining the relationship between all dimensions of well-being and spirituality for each age group. Then we explore two specific hypotheses: 1) scores on the dimensions of meaning and purpose in life and mission in life from Elkin's Spiritual Orientation Inventory will directly predict scores on the dimensions of purpose in life and personal growth from Ryff's Well-being measure, and 2) the strength of the spirituality variables as predictors of well-being in hypothesis 1 will increase with age, with spirituality becoming a better predictor of well-being over time.
METHOD

Design & Analysis

This study is a correlational design with the nine dimensions of spirituality designated as predictor variables and the six dimensions of well-being as criterion variables. Analysis of variance (ANOVA) was used to evaluate the relationship between age and scores on both the well-being and spirituality measures. Then, relationships among the six well-being factors (Ryff, 1989a) and the nine spirituality factors (Elkins, et al., 1988) were examined by computing zero-order correlations for all three age groups. Finally, the predictor variables derived from the dimensions of meaning and purpose in life and mission in life from the SOI were used to predict scores on the criterion variables, purpose in life and personal growth from Ryff's PWBS.

Participants

Participants consisted of 255 subjects, 85 in each of three age-defined groups; young adults (18-29), middle age adults (30-64), and older adults (65+). Eighty five subjects per group for correlation coefficient is suggested by Cohen's power table for a medium effect size at a .05 alpha level. Since I tested a hypothesized correlation between dimensions of Ryff's well-being construct and dimensions of spirituality, the current study replicates as
nearly as possible Ryff's design. Accordingly, age ranges in this study follow Ryff's: the young adult group is 18 to 29, the middle age group 30 to 64, and 65+ constitutes the group of older adults. The young adults were recruited from college campuses, and from social groups associated with community organizations. The middle age and older adults were enlisted from colleges, community groups, churches, civic organizations, and senior centers.

Materials

Well-being was assessed using the PWBS developed by Ryff (1989a). The PWBS consists of 84 items defining six dimension of well-being: Self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. Internal consistency coefficients for the subscales of PWBS are as follows, self acceptance = .91, positive relations with others = .88, autonomy = .83, environmental mastery = .86, purpose in life = .88, personal growth = .85 (Ryff, 1989b). Ryff provides descriptions of high and low scorers for all dimensions (See Appendix A).

A sample of questions from the scales follows: Self-acceptance, "Given the opportunity, there are many things about myself that I would change." Positive relations with others, "Most people see me as loving and affectionate." Autonomy, "I tend to be influenced by people with strong
opinions." Environmental Mastery, "The demands of everyday life get me down." Purpose in Life, "I have a sense of direction and purpose in life." Personal Growth, "I am the kind of person who likes to give new things a try."

Spirituality was measured with the SOI (Elkins et al., 1988). The SOI consists of 85 items which define nine dimensions of spirituality: Transcendent dimension, meaning and purpose in life, mission in life, sacredness of life, material values, altruism, idealism, awareness of the tragic, fruits of spirituality. Internal consistency coefficients for the nine subscales ranged from .81 to .98 (Elkins, et al., 1988). The SOI is accompanied by a description of the ideal state of spirituality for each dimension, (See Appendix B).

A sample of questions from the nine scales follows: Transcendent dimension, "I have had transcendent experiences in which I was overcome with a sense of awe, wonder, and reverence." Meaning and purpose, "Answers can be found when one truly searches for the meaning and purpose of one's life." Mission in life, "Life is most worthwhile when it is lived in service to an important cause." Sacredness of life, "I see wisdom in the view of primitive peoples that nature is sacred." Material values, "While money and possessions are important to me, I find my
deepest satisfaction from spiritual factors." Altruism, "Humans are mutually responsible to and for one another." Idealism, "In spite of all I continue to have a deep positive belief in humanity." Awareness of the tragic, "It seems pain and suffering are often necessary to make us examine and re-orient our lives." Fruits of spirituality, "Contact with the transcendent, spiritual dimension has helped me to be more loving to others."

Participants were advised to indicate their degree of agreement or disagreement with each item using a 6-point scale for the PWBS measure and a 7-point scale for the SOI. On the PWBS, responses range from strongly disagree (1), to strongly agree (6). Total scores run from a low of 14 to a high of 84 for each scale. On the SOI, responses range from intensely disagree (1), to intensely agree (7). Score ranges vary across the 9 dimensions and are as follows: Awareness of the tragic 5-35, material values 6-42, altruism 7-49, mission in life 9-63, meaning and purpose in life, idealism, fruits of spirituality 10-70, transcendent dimension 13-91, and sacredness in life 15-105. Fifty percent of the questions are reversed scored on the PWBS, while twenty percent are reversed on the SOI.

The demographic questionnaire requested information about general personal data: age, gender, ethnicity, academic status, health status, religious preference,
marital status, employment and a question equating financial stability with income status.

Procedures

Questionnaires were administered to participants at the aforementioned organizations. The instruments were self-administered, with testing time between 60 to 90 minutes. The university students completed and returned the questionnaires on campus. The middle and older adults completed the questionnaires at group settings or, if time did not permit, at home and returned them by mail to the experimenter. Follow-up cards were used to remind those participants who fail to return the questionnaires by mail. Results were made available to interested participants at the end of the research project.
RESULTS

Participants in this research consisted of 182 females and 95 males divided into 3 age groups, young adult (YA), (18-29 years, n = 92, mean = 21.3, SD = 3.38), middle adult (MA), (30-65 years, n = 99, mean = 41.9, SD = 7.74), and old adult (OA), (65+years, n = 86, mean = 71.2, SD = 6.91). Of the 500 questionnaires distributed, 295 (59%), were returned; of these, 277 (55.4%) were usable, and were analyzed for the present study. The sample was predominately white (65%), married (47%), had some college education (55%), and was employed at least part time (67%), (See Appendix C).

The descriptive statistics for the Psychological Well-being Scale and Spirituality Orientation Inventory are summarized in Tables 1 and 2. Higher scores on all PWBS and SOI subscales indicate higher levels of well-being or spirituality, respectively.

Table 1
Descriptive Statistics for Well-Being Subscales

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Potential Range</th>
<th>Actual Range</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
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<td>27-84</td>
<td>68.23</td>
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<tr>
<td>Positive Rel.</td>
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<td>Purpose-Life</td>
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<td>37-84</td>
<td>66.51</td>
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<tr>
<td>Self Accept</td>
<td>14-84</td>
<td>22-84</td>
<td>63.79</td>
<td>11.64</td>
</tr>
</tbody>
</table>

Envirn. Mastery = Environmental Mastery, Positive Rel = Positive Relations with Others, Purpose-Life = Purpose in Life. N = 277 (182 females, 95 males)
Table 2

Descriptive Statistics for Spirituality Subscales

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Potential Range</th>
<th>Actual Range</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
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<tr>
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<td>10-49</td>
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<td>10-70</td>
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<td>10-70</td>
<td>54.67</td>
<td>9.21</td>
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<tr>
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<td>6-42</td>
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<td>Mission in Life</td>
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<td>9-63</td>
<td>46.29</td>
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<tr>
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<td>5-35</td>
<td>24.71</td>
<td>5.85</td>
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<tr>
<td>Transcendent</td>
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<td>14-91</td>
<td>56.72</td>
<td>19.91</td>
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</tbody>
</table>

Fruit of Spirit = Fruits of Spirituality, Mean & Purpose = Meaning and Purpose in Life, Sacredness = Sacredness of Life, Aware of Tragic = Awareness of the Tragic, Transcendent = Transcendent Dimension

N = 272 (177 females, 95 males)

Correlational Analyses

The first analyses conducted was an internal reliability assessment based on coefficient alphas and inter-item correlations, shown in Tables 3 and 4. All subscales on both measures were significantly correlated at the p < .01 level. Correlations on the PWBS scale ranged from a low of .41 for the subscales environmental mastery and personal growth, to a high of .79 between environmental mastery and self acceptance. Coefficient alphas for the PWBS ranged from .81 to .88. These are comparable with the alphas reported by Ryff in multiple research applications (eg., 1991, 1992, 1995). Coefficient alphas for the SOI range from .70 to .96, which is consistent with those reported by Elkins (1988). Correlations on the SOI range
from a low of .36 between the altruism and transcendent dimension subscales, to a high of .92 between the transcendent dimension and fruits of spirituality subscales. In both instances, the coefficient alphas and inter-item correlations suggest that the PWBS and SOI measures are reliable instruments for the measurement of well-being and spirituality, respectively.

Table 3

Inter-item Correlations and Coefficient Alphas for PWBS

<table>
<thead>
<tr>
<th></th>
<th>Autonomy</th>
<th>E-Mastery</th>
<th>Per Growth</th>
<th>Pos Relat</th>
<th>Purpose</th>
<th>Self Accep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>-</td>
<td></td>
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<tr>
<td>E-Mastery</td>
<td>.57**</td>
<td>-</td>
<td></td>
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<tr>
<td>Per Growth</td>
<td>.45**</td>
<td>.41**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pos Relat</td>
<td>.56**</td>
<td>.65**</td>
<td>.52**</td>
<td>-</td>
<td></td>
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<tr>
<td>Purpose</td>
<td>.54**</td>
<td>.72**</td>
<td>.64**</td>
<td>.62**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Self Accep</td>
<td>.66**</td>
<td>.79**</td>
<td>.43**</td>
<td>.69**</td>
<td>.75**</td>
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<tr>
<td>Coef Alpha</td>
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<td>.85</td>
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<td>.88</td>
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</table>

E-Mastery = Environmental Mastery, Per Growth = Personal Growth, Pos Relat = Positive Relations with Others, Purpose = Purpose in Life, Self Accep = Self Acceptance, Coef Alpha = Coefficient Alpha.

Note: (** p < .01)
Table 4
Inter-item Correlations and Coefficient Alphas for SOI

<table>
<thead>
<tr>
<th></th>
<th>Altru</th>
<th>Spirit</th>
<th>Ideal</th>
<th>Values</th>
<th>Mean</th>
<th>Mission</th>
<th>Sacred</th>
<th>Aware</th>
<th>Transe</th>
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</thead>
<tbody>
<tr>
<td>Altru</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spirit</td>
<td>.40**</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Ideal</td>
<td>.65**</td>
<td>.41**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Values</td>
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<td>.71**</td>
<td>.69**</td>
<td>.64**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>.70**</td>
<td>.70**</td>
<td>.68**</td>
<td>.62**</td>
<td>.85**</td>
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<td></td>
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</tr>
<tr>
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<td>.64**</td>
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<td>.66**</td>
<td>.65**</td>
<td>--</td>
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<td>.56**</td>
<td>.59**</td>
<td>.57**</td>
<td>.45**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Transe</td>
<td>.36**</td>
<td>.92**</td>
<td>.35**</td>
<td>.59**</td>
<td>.66**</td>
<td>.62**</td>
<td>.47**</td>
<td>.49**</td>
<td>--</td>
</tr>
</tbody>
</table>

Alpha: .79 .96 .80 .79 .86 .80 .80 .70 .95

Altru = Altruism, Spirit = Fruits of Spirituality, Values = Material Values, Mean = Meaning and Purpose in Life, Mission = Mission in Life, Sacred = Sacredness of Life, Aware = Awareness of the Tragic, Transe = Transcendent Dimension, Alpha = Coefficient Alphas

Note: (** p < .01)

To explore the conceptual similarities of the PWBS and SOI subscales, correlation coefficients were computed between the dimensions of Psychological Well-Being and Spirituality, Table 5. The significant correlation coefficients displayed are from the low range, .12, to the moderately high, .45. As predicted in the first hypothesis, meaning and purpose in life and mission in life from the SOI were significantly correlated with purpose in life and personal growth from the PWBS.

Personal growth and positive relations with others (PWBS) correlated significantly with all nine of the SOI subscales. Purpose in life and self acceptance (PWBS)
correlated significantly with all but awareness of the tragic (SOI). Autonomy and environmental mastery (PWBS) correlated significantly with all but awareness of the tragic and the transcendent dimension subscales of the SOI. The subscales awareness of the tragic and the transcendent dimension were the only SOI variables that did not correlate with the PWBS variables across the board.

Table 5

Correlations: Psychological Well-Being and Spirituality

<table>
<thead>
<tr>
<th></th>
<th>PWBS</th>
<th>Autonomy</th>
<th>Envir Mast</th>
<th>Person Gro</th>
<th>Positive</th>
<th>Purpose</th>
<th>Self Accep</th>
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<tbody>
<tr>
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<td>.44**</td>
<td>.37**</td>
<td>.38**</td>
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<td>.12*</td>
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<td>.21**</td>
<td>.16**</td>
<td>.23**</td>
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<tr>
<td>Idealism</td>
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<td>.28**</td>
<td>.21**</td>
<td>.45**</td>
<td>.30**</td>
<td>.39**</td>
<td>.34**</td>
</tr>
<tr>
<td>Values</td>
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<td>.17**</td>
<td>.23**</td>
<td>.30**</td>
<td>.13*</td>
<td>.26**</td>
</tr>
<tr>
<td>Mean/Purp</td>
<td></td>
<td>.22**</td>
<td>.33**</td>
<td>.41**</td>
<td>.31**</td>
<td>.33**</td>
<td>.29**</td>
</tr>
<tr>
<td>Mission</td>
<td></td>
<td>.21**</td>
<td>.18**</td>
<td>.34**</td>
<td>.26**</td>
<td>.27**</td>
<td>.27**</td>
</tr>
<tr>
<td>Sacredness</td>
<td></td>
<td>.29**</td>
<td>.25**</td>
<td>.42**</td>
<td>.32**</td>
<td>.29**</td>
<td>.31**</td>
</tr>
<tr>
<td>Aware-Trag</td>
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<td>.01</td>
<td>.25**</td>
<td>.16**</td>
<td>.04</td>
<td>.08</td>
</tr>
<tr>
<td>Transcend</td>
<td></td>
<td>.11</td>
<td>.10</td>
<td>.30**</td>
<td>.20**</td>
<td>.15*</td>
<td>.18**</td>
</tr>
</tbody>
</table>

Envir Mast = Environmental Mastery, Person Gro = Personal Growth, Positive = Positive Relations with Others, Purpose = Purpose in Life, Self Accep = Self-Acceptance, Spirit = Fruits of Spirituality, Values = Material Values, Mean/Purp = Meaning and Purpose in Life, Mission = Mission in Life, Sacredness = Sacredness of Life, Aware-Trag = Awareness of the Tragic, Transcend = Transcendent Dimension

Note: (** p < .001, * p < .05).

To explore the relationship of the demographic data to the target PWBS subscales, purpose in life and personal growth, correlation coefficients were computed. Gender, education and income were significantly correlated with
purpose in life (.20, .15 and .18), and gender alone with personal growth (.22), all correlations were at the $p < .01$ level. Through follow-up testing it was shown that females tended to score higher than males on both PWBS criterion subscales. Participants with higher education and higher income also tended to demonstrate higher scores on the PWBS subscale purpose in life.

Correlations of PWBS and SOI Variables Categorized by Age

To test our prediction that the strength of the SOI variables as predictors of purpose in life and personal growth (PWBS) would increase with age, a further correlational analysis was conducted on the relationship between the predictor (SOI) variables and the criterion (PWBS) variables isolated by age; correlations coefficients are displayed in Table 6. The correlations between meaning and purpose in life (SOI) and both PWBS criterion variables, and that of mission in life (SOI) and the PWBS criterion variable personal growth, demonstrated support for this hypothesis: Age strengthens the predictive power of the spirituality variables as predictors of well-being over time. The size of the correlations for both PWBS variables and the SOI variable meaning and purpose in life, doubled between the young adult groups and the old adult group, with the middle adult group falling slightly lower.
than the young adult group. The correlation coefficients displayed for SOI mission in life and PWBS personal growth demonstrated an incremental age profile, with each succeeding age group yielding a substantially stronger correlation than the previous group. The only correlations among the four subscales that did not demonstrate an incremental age profile was between SOI mission in life and PWBS purpose in life.

To determine if other of the SOI variables would demonstrate similar age profiles, the remainder of the SOI variables were divided by age group and a correlational analysis was run with the two PWBS criterion variables, see Table 6. The only SOI variable that showed an incremental age profile for both PWBS criterion variables was sacredness in life. Purpose in life (PWBS) demonstrated a partial incremental age profile with meaning and purpose in life (SOI) and a complete incremental age profile with sacredness in life (SOI). However, personal growth (PWBS) demonstrated an incremental age profile with all SOI variables to some degree. Developmental age profiles, with each succeeding age group demonstrating a stronger correlation coefficient, were demonstrated with three SOI variables: mission in life, altruism, and sacredness of life. There were also three SOI variables that showed this
developmental trend, though with non-significant correlation coefficients: *fruits of spirituality, material values* and the *transcendent dimension*. *Awareness of the tragic and meaning and purpose in life* (SOI) demonstrated a partial age trend, with the old adult group demonstrating a correlation coefficient substantially stronger than both younger groups, but with the middle adult correlation somewhat weaker than for young adults. The ninth SOI variable, *idealism*, also showed a partial age trend with the young and middle age groups sharing the same substantial correlation (.50), and the old age group an even stronger correlation (.62). Although many of the correlation coefficients in this analysis are statistically significant, it is the relationship of the variables across the age groups that is of primary interest here.
Table 6
Correlations of PWBS and SOI Variables Isolated by Age

<table>
<thead>
<tr>
<th>SOI</th>
<th>PWBS Purpose in Life</th>
<th>PWBS Personal Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y Adult</td>
<td>M Adult</td>
</tr>
<tr>
<td>Meaning</td>
<td>.28**</td>
<td>.23*</td>
</tr>
<tr>
<td>Mission</td>
<td>.28**</td>
<td>.25*</td>
</tr>
<tr>
<td>Altruism</td>
<td>.38**</td>
<td>.33**</td>
</tr>
<tr>
<td>Fruits</td>
<td>.13</td>
<td>.12</td>
</tr>
<tr>
<td>Idealism</td>
<td>.42**</td>
<td>.46**</td>
</tr>
<tr>
<td>Values</td>
<td>.06</td>
<td>.08</td>
</tr>
<tr>
<td>Sacred</td>
<td>.23*</td>
<td>.27**</td>
</tr>
<tr>
<td>Aware</td>
<td>.08</td>
<td>.03</td>
</tr>
<tr>
<td>Transcnd</td>
<td>.11</td>
<td>.16</td>
</tr>
</tbody>
</table>

* Y Adult = Young Adult, M Adult = Middle Adult, O Adult = Old Adult, Meaning = Meaning and purpose in life, Mission = Mission in life, Fruits = Fruits of Spirituality, Values = Material values, Sacred = Sacredness of life, Aware = Awareness of the tragic, Transcnd = Transcendent dimension

Note: (** p < .01, * p < .05)

Examining scores on each variable by age group we see that two SOI variables demonstrated an incremental age profile with purpose in life (PWBS), seven SOI variables demonstrate an incremental age profile with personal growth (PWBS), one SOI variable, sacredness of life, shows an incremental age profile with both PWBS criterion variables, and there are several instances where correlations for the old age group are substantially stronger than for the young. For instance, in the correlations between meaning and purpose in life (SOI) and the two PWBS criterion variables, the correlations for the old age group are
considerably stronger than for the young, while the middle age group falls below them both. The profiles of both PWBS subscales suggest a relationship between dimensions of psychological well-being and spirituality that are strengthened by aging. Moreover, with seven of the nine SOI variables demonstrating an incremental age profile with the PWBS subscale personal growth, the hypothesized relationship between constructs, strengthened by aging, is confirmed.

Regression Analysis of PWBS and SOI Variables

Regression analyses were run to further examine the relationships found in the correlational analysis. To test the first hypothesis, that scores on the SOI subscales meaning and purpose in life and mission in life would be predictive of scores on the PWBS subscales personal growth and purpose in life, stepwise multiple regressions were conducted with the nine SOI subscales and the three significant demographic correlates, as predictor variables for the two PWBS criterion variables, (Table 7).
Table 7

Step-Wise Regressions: SOI and Demographic Predictors

<table>
<thead>
<tr>
<th>SOI Variables</th>
<th>PWBS Purpose in Life</th>
<th>PWBS Personal Growth</th>
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<tbody>
<tr>
<td></td>
<td>$R^2$</td>
<td>$R^2$ Change</td>
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<td>Altruism</td>
<td>.18**</td>
<td>.04</td>
</tr>
<tr>
<td>Awareness of Tragic</td>
<td>.22**</td>
<td>.04</td>
</tr>
<tr>
<td>Gender</td>
<td>.24**</td>
<td>.02</td>
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<tr>
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<td>Idealism</td>
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<td></td>
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<tr>
<td>Altruism</td>
<td>.24**</td>
<td>.04</td>
</tr>
<tr>
<td>Gender</td>
<td>.26**</td>
<td>.02</td>
</tr>
<tr>
<td>Transcendent</td>
<td>.28**</td>
<td>.02</td>
</tr>
<tr>
<td>Mission in Life</td>
<td>.30**</td>
<td>.02</td>
</tr>
</tbody>
</table>

Note (** p < .000)

This analysis provided partial support for hypothesis 1: Meaning and purpose in life (SOI) successfully predicted PWBS purpose in life; mission in life (SOI) successfully predicted PWBS personal growth. Further, two SOI variables, idealism and altruism, and one demographic variable, gender, were predictive for both PWBS criterion variables, purpose in life and personal growth. Scores on purpose in life (PWBS) were also predicted by awareness of the tragic and meaning and purpose in life (SOI) and the demographic variable, education. Scores on personal growth
(PWBS), were additionally predicted by transcendent dimension and mission in life (SOI). Thus, the relationship between spirituality and well-being constructs is shown in two ways: Each SOI predictor variable successfully predicted a PWBS criterion variable, and relationships were found between four other SOI variables and both PWBS criterion variables.

Summarizing findings for the first regression analysis: Scores on the subscale purpose in life (PWBS) were predicted by the hypothesized meaning and purpose in life (SOI), and by idealism, altruism, and awareness of the tragic, plus the demographic variables, gender and education, $F(1,278)=5.83, p =.016, R^2=.21$. Scores on the subscale personal growth (PWBS) were predicted by the hypothesized mission in life (SOI), and by idealism, altruism, and transcendent dimension, plus the demographic variable, gender, $F(1,279)=7.46, p =.007, R^2=.30$.

Regressions of PWBS and SOI Variables Categorized by Age

To further examine the hypothesized relationship between age and the strength of the relationship between the SOI and PWBS variables (hypothesis 2), stepwise multiple regressions were conducted with the predictor (SOI) and criterion (PWBS) variables categorized by age; results are displayed in Table 8. As in the initial
regression, the nine SOI and the three significantly correlated demographic variables are grouped as predictors of the two PWBS criterion variables, *purpose in life* and *personal growth*.

The SOI predictor variable, *meaning and purpose in life*, demonstrated a significant relationship with both PWBS criterion variables for the old age group. *Mission in life* (SOI) showed a predictive relationship with the PWBS variable *purpose in life*, but not *personal growth*, for the old age group. The two SOI predictor variables, *meaning and purpose in life* and *mission in life*, combined to account for most of the variance for the old age PWBS criterion variable *purpose in life*, 23% and 9%, respectively. *Meaning and purpose in life* (SOI) alone accounted for 51% of 56% of the variance for the PWBS criterion variable *personal growth* in the old age category. *Altruism* and *idealism* (SOI) were the strongest predictors for the young adult groups, and *idealism* and *sacredness of life* (SOI) accounted for the largest proportion of variance in the middle age groups.
Table 8
Step-Wise Regressions: SOI, PWBS and Demographic Variables
Isolated by Age

<table>
<thead>
<tr>
<th>SOI - Demo. Variables</th>
<th>PWBS Purpose in Life R²</th>
<th>R² Change</th>
<th>PWBS Personal Growth R²</th>
<th>R² Change</th>
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<tr>
<td>Idealism</td>
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<td>Awareness - Tragic</td>
<td>.24**</td>
<td>.03</td>
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<tr>
<td>Altruism</td>
<td>.28**</td>
<td>.04</td>
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<tr>
<td>Old Adult</td>
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<td></td>
</tr>
<tr>
<td>Meaning/Purpose</td>
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<td></td>
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<tr>
<td>Awareness - Tragic</td>
<td>.36**</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Young Adult

| Idealism              | .14**                    |            |                          |          |

Middle Adult

| Sacredness            | .28**                    |            |                          |          |
| Gender                | .36**                    | .08        |                          |          |
| Idealism              | .41**                    | .05        |                          |          |

Old Adult

| Meaning/Purpose       | .51**                    |            |                          |          |
| Education             | .54**                    | .03        |                          |          |
| Idealism              | .56**                    | .02        |                          |          |

Awareness - Tragic = Awareness of the Tragic, Meaning/Purpose = Meaning and Purpose in Life, Sacredness = Sacredness of Life.

Note (** p < .000)

In the initial regression, idealism (SOI) was the first
predictor variable, and as such, accounted for most of the variance for both PWBS criterion variables, purpose in life and personal growth. In the current analysis, while idealism (SOI) continues to play a significant role in predicting the two PWBS criterion variables, it demonstrated a similarly strong relationship in only two of the six age group regressions. Meaning and purpose in life (SOI) produced the strongest relationship with both PWBS old age categories, and sacredness of life and altruism (SOI) each demonstrated a strong predictive relationship with the remaining two age groups. It was hypothesized that the strength of the SOI variables, meaning and purpose in life and mission in life, as predictors of the PWBS variables, purpose in life and personal growth, would increase with age. In this analysis, one SOI variable, meaning and purpose in life, demonstrates just such a relationship.

Means Analysis of PWBS Old Adult Personal Growth Variable

The final analysis conducted was a series of independent t tests on SOI subscale scores for old age participants who were high scorers or low scorers on the PWBS subscale personal growth. This subscale was the only PWBS variable to demonstrate a decremental age profile, with scores dropping from middle age to old age. Ryff's
research has found a similar decremental age profile for the subscale personal growth (1989b, 1991, 1995). My interest in this research was originally piqued by the decremental age profile this subscale consistently demonstrates. Since we predict a relationship between spirituality and well-being, and further predict that the relationship will be strengthened over time, it is of interest to examine the one PWBS subscale score that drops rather than increases with age.

The analysis was done by dividing the old adult group into two old adult groups, based on their scores on the personal growth subscale, divided at the median. Then mean scores on the nine SOI subscales for those above the median (high scorers) are compared with those below the median (low scorers), using independent t tests. Results showed that high scorers on PWBS personal growth scored significantly higher on all nine SOI subscales than personal growth low scorers, (Table 9). This result gives some support to the idea that later life well-being is linked to spirituality, and may help explain the personal growth decrement found in prior research using the PWBS.

Additional independent t tests were run with the late adults by creating median-divided "low" and "high" scorer groups for the remaining five PWBS subscales. This analysis was conducted to examine PWBS outcomes for high
verses low scorers across the nine SOI variables. For each SOI subscale mean differences followed the same trend, with PWBS high scorers scoring higher on the SOI than the PWBS low scorers, although not all differences were significant as in the previous analysis. The only SOI variables to show significant mean differences with all PWBS variables were meaning and purpose in life and idealism. However, the pattern for the two groups, old adult high versus low scorers on the PWBS subscales, is consistent: Those who scored high on the PWBS subscales also scored high on the SOI subscales and the low scorers for PWBS scored low on the SOI as well. These finding add support to the claim that later life psychological well-being is linked to spirituality.
### Table 9

**Means Analysis of PWBS Old Adult Personal Growth Variable**

<table>
<thead>
<tr>
<th>PWBS</th>
<th>Mean</th>
<th>Deviation</th>
<th>N</th>
<th>Std.</th>
<th>t Score</th>
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<tr>
<td>Transcendent Dimension</td>
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</tr>
<tr>
<td>High Scorer</td>
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<td>44</td>
<td>t(82)=4.548</td>
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<tr>
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<td>45.43</td>
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<tr>
<td>Meaning and Purpose in Life</td>
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<td>t(74)=7.803</td>
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<tr>
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<tr>
<td>Mission in Life</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Scorer</td>
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<td>6.94</td>
<td>44</td>
<td>t(80)=5.366</td>
<td>p&lt;.000</td>
</tr>
<tr>
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<td>8.36</td>
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<tr>
<td>Sacredness of Life</td>
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<tr>
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<td></td>
<td></td>
</tr>
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<td>5.75</td>
<td>44</td>
<td>t(80)=3.495</td>
<td>p&lt;.001</td>
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<td>21.93</td>
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</tr>
<tr>
<td>Fruits of Spirituality</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Scorer</td>
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<td>15.00</td>
<td>44</td>
<td>t(80)=5.313</td>
<td>p&lt;.000</td>
</tr>
<tr>
<td>Low Scorer</td>
<td>35.57</td>
<td>11.46</td>
<td>42</td>
<td></td>
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</table>

**Summary of Results**

The purpose of this research was to explore possible relationships between the constructs of psychological well-being and spirituality. It was proposed that a significant correlation would be demonstrated between specific subscales of the SOI and PWBS measures due to the strong similarity in their underlying theoretical structure. In sum, the results were in favor of such a relationship.
With the exception of two of the nine SOI subscales, transcendent dimension and awareness of the tragic, all other subscales of both measures demonstrated significant correlations. When correlations were run between the two PWBS criterion variables and the demographic variables, gender, education and income demonstrated significant correlation coefficients. When the scores on the two SOI predictor variables, meaning and purpose in life and mission in life, and the two PWBS criterion variables, purpose in life and personal growth, were categorized by age, an incremental age profile was demonstrated for three of the four correlations. When the remaining SOI variables were categorized by age group (YA|MA|OA), the resulting analysis revealed nine incremental age profiles and four variables whose profiles showed the old scoring substantially higher than the young. This relationship between predictor variables, SOI meaning and purpose in life and mission in life, and the criterion variables, PWBS purpose in life and personal growth, is strengthened over time, suggesting that spirituality becomes a stronger predictor of well-being over time.

It was also demonstrated through step-wise multiple regression analysis that meaning and purpose in life (SOI) significantly predicted scores on purpose in life (PWBS),
and mission in life (SOI) significantly predicted scores on personal growth (PWBS). Idealism and altruism (SOI) predicted both PWBS criterion variables, with idealism accounting for most of the variance for both. When regressions were run with the SOI predictor and PWBS criterion variables isolated by age, idealism and altruism (SOI) continued to demonstrate a strong predictive relationship for the young and middle adult groups, but meaning and purpose in life (SOI) demonstrated the strongest predictive relationship for both old age groups. This result demonstrates the hypothesized strength of the predictive relationship between the SOI variables and the PWBS criterion variables over time.

Personal growth (PWBS) was the only PWBS variable to demonstrate a negative age profile; scores dropped from middle to old age. When the declining scores for the personal growth (PWBS) old adult group were examined, significant mean differences were found on all nine SOI variables between the two old age groups created by dividing PWBS personal growth scores at the median; those who scored higher on the PWBS also scored higher on the SOI. Further analysis showed meaning and purpose in life and idealism (SOI) were the only two variables to demonstrate significant mean differences for all PWBS
variables when divided at the median into high and low scorers.
DISCUSSION

It was hypothesized that a relationship between spirituality and psychological well-being would be demonstrated in this research. It was secondarily hypothesized that the strength of this relationship would increase from young to middle to old adult. As predicted, a strong relationship between measured dimensions of spirituality and psychological well-being was demonstrated through correlational and multiple linear regressions. Additionally, the predicted strengthening of the relationship between spirituality and psychological well-being was demonstrated through correlational and means-comparison analysis.

Traditional research on aging characterizes well-being as a multidimensional construct with several distinct components; spirituality is conspicuously lacking among these. The assessment of spirituality as a factor in well-being is hampered by lack of agreement about definitions and measures (McFadden, 1996). However, the neglect of spirituality in studies of adulthood and aging is not only a matter of operational definitions; it is also because spirituality is considered a "fuzzy" or conceptually "soft" construct by many psychologists (Zinnbauer et al., 1997).

Definitions of spirituality cover multiple concepts, but there is consensus on persons' "conscious involvement" in the quest for spiritual meaning. Reed's (1991)
definition, "the human propensity to find meaning in life through self-transcendence; ... evident in ... behaviors that express a sense of relatedness to a transcendent dimension or to something greater than the self" (p. 15) captures this proactive aspect of spirituality.

Ryff's (1989a) construct of Psychological Well-Being, with its underlying theoretics steeped in the language of spirituality, draws on spiritual meanings without measuring spirituality directly. It was the goal of this study to reveal this surrogate variable by demonstrating a relationship between two specific dimensions of Ryff's construct of well-being: Purpose in life and personal growth, and two proposed corresponding dimensions of spirituality, meaning and purpose in life and mission in life, as defined by Elkins et al., (1988).

The results of this study point to just such a relationship: Significant correlations were demonstrated between the four variables ranging in magnitude from .27 to .41. Seven of the nine SOI subscales correlated significantly with all six of the PWBS subscales. Multiple regression analysis showed that meaning and purpose in life (SOI) predicted purpose in life (PWBS), and mission in life (SOI) predicted personal growth (PWBS). On viewing this result, one might assume that the two SOI subscales, awareness of the tragic and the transcendent dimension,
that did not produce significant correlations with the PWBS subscales were completely unrelated to psychological well-being. Yet in stepwise multiple regressions, both subscales contributed to a significant linear relationship with the PWBS criterion variables. Had the analysis for this research looked only at the correlational relationship between the PWBS and SOI subscales, or only at the hypothesized relationship between specific predictor and criterion variables, the contribution of these two SOI variables to psychological well-being would not have been noticed.

The study of spirituality as a factor in psychological well-being is somewhat analogous. Mainstream psychology borrows from the major theorists of adulthood spirituality in construct creation, but rather than portray well-being as inclusive of spirituality, chooses traditional variables for measurement (Paloutzian & Kirkpatrick, 1995). By excluding spirituality from the well-being equation, researchers limit the study of variables that may contribute to well-being as a whole. For instance, in this study it was hypothesized that a strong relationship would be demonstrated between the PWBS subscales purpose in life and personal growth and the SOI subscales meaning and purpose in life and mission in life because these subscales are conceptually similar. However, three other SOI
subscales also demonstrated multiple significant statistical relationships with the two target PWBS subscales. In stepwise multiple regressions, idealism and altruism predicted both PWBS criterion variables, with idealism accounting for 16% of 27% of the total variance for purpose in life and 20% of 30% of the total variance for the subscale personal growth. Idealism and altruism (SOI) also demonstrated strong correlations in an incremental age profile with the PWBS subscale personal growth, and in multiple regressions by age predicted one or the other PWBS criterion variables. The third SOI subscale, sacredness in life, demonstrated a complete incremental age profile correlation with both PWBS criterion variables, and demonstrated a strong predictive relationship with personal growth (PWBS) for the middle age group. These three subscales introduce concepts beyond those initially hypothesized as factors in well-being. From the notion of the "positive potential in all aspects of life" to "a commitment to altruistic love and action" to "the belief that all of life is holy and that the sacred is in the ordinary" (Elkins, et al., 1988) these SOI subscales represent conceptual considerations that notably expand the construct of psychological well-being.

It was additionally hypothesized in this research that
the predicted relationship between the spirituality variables and psychological well-being variables would strengthen with age. This was marginally demonstrated for the PWBS subscale purpose in life, with three SOI subscales showing an incremental age profile. The more interesting finding was with the PWBS subscale personal growth. This subscale demonstrated two distinct age-related patterns. When personal growth was isolated by age, an incremental age profile was demonstrated with all nine SOI subscales; and personal growth was the only PWBS subscale to demonstrate a decremental age profile when scores were viewed across the spectrum of age groups.

Age as a factor in the relationship between constructs is supported by both age profiles. The incremental age profile demonstrates an obvious relationship between the SOI variables and personal growth (PWBS). Seven of the nine SOI variables demonstrated a complete incremental profile, with the size of each correlation increasing across the age groups. The two remaining SOI variables demonstrated a partial incremental age profile, with coefficients from the young to old age groups showing a substantial increase, while the middle age group dropped below the young. Thus as age increased, the strength of the relationship between personal growth (PWBS) and the SOI variables increased. Similarly, with step-wise multiple
regressions of the four target variables isolated by age, we see for the two old age groups a strong relationship between both SOI predictor variables and *purpose in life* (PWBS), and with *meaning and purpose in life* (SOI) alone for personal growth (PWBS). For the older age group *meaning and purpose in life* (SOI) replaces *idealism* (SOI) as the strongest predictor of both criterion variables, *purpose in life* and personal growth (PWBS).

Interestingly, the once puzzling decremental age profile for personal growth (PWBS) may also point to a relationship between spirituality and well-being. When the older adult group was broken into two new groups, determined by a median split on the scores of the personal growth subscale, there was a significant difference between the means for the two groups on all the SOI variables. Of particular interest here, the personal growth high scorers scored significantly higher on all the SOI subscales than the low scorers. So though the older age group as a whole scored significantly lower on personal growth (PWBS) than the two younger groups, when divided into high and low scorers, those who maintained personal growth in late life were high scorers on all nine SOI variables. The effect of spirituality seen in these three statistical relationships illustrates the inadequacy of using age alone as an
explanatory variable in understanding psychological well-being in late life.

Beyond the differential impact of spirituality on PWBS personal growth scores, characteristics of the subscale itself may further help account for the significant drop in scores from the middle to old age groups on this PWBS subscale. The difference in scores between the positively and negatively worded questions for the old age group on the subscale personal growth is nearly double that of those for each of the other 5 scales. There is a 21% drop in the scores between positively and negatively stated questions for the subscale personal growth, while the difference between scores for the other five scales ranges from 10% to 13%. Moreover, one question accounts for a disproportional percentage of this difference, and if removed, the difference between positively and negatively scored questions changes to 15% and there no longer is a statistical significant difference between age groups. The question states: I do not enjoy being in new situations that require me to change my old familiar ways of doing things. There was a 22% drop in scores between the middle age and old age groups on this question, while on average there was a 6% difference between the positively and negatively scored questions between the age groups. This question, which seems to be a "two part" question, may be
ambiguous, or it may cast respondents in an especially negative light. Whatever its limitations, this single question (1 out of 14) has a disproportionate influence on the total subscale score.

As well as helping to confirm the relationship between spirituality and well-being, I think the multiple relationships demonstrated between the PWBS subscale personal growth and the SOI variables, speaks directly to the importance of this dimension for the well-being of the older population. Ryff considers the substance of the subscale personal growth to be beyond the necessary for a "fully functioning person"; it is considered "optimal" to continue one's personal growth rather than essential.

All of the preceding criteria represent ideal end-states of the fully functioning person. That is, they constitute goals for complete development. However, optimal development requires not only that one achieve these qualities, but also that one continue to develop one's potential (Ryff, 1989a, p.44).

It was hypothesized that this research would demonstrate a strong relationship between the PWBS subscales purpose in life and personal growth and the construct of spirituality. Personal growth (PWBS) in particular has demonstrated a strong relationship with the SOI subscales. This suggests that the PWBS subscale personal growth is in part a measure
of spirituality. For many, the spiritual quest is a lifelong journey. "Spiritual needs are the deepest requirement of the self, which if met, make it possible for the person to function with a meaningful identity and purpose" (Bollinger, 1969, p. 50). Given the observed relationship between the PWBS subscale personal growth and spirituality, I believe that continued personal growth may be considered a requisite of the fully functioning person, rather than simply a bonus.

While psychology is still wrestling with defining an "obscure construct in need of empirical grounding and operationalization" (Zinnbauer et al., 1997, p. 549), the nursing profession identified "spiritual distress" as a nursing diagnosis as early as 1981 (Kim & Moritz, 1981). Spiritual distress is defined as "a disruption in the life principle that pervades a person's entire being and that integrates and transcends one's biological and psychosocial nature" (Kim, McFarland, McLane, 1984, p. 57). Using the 18 symptoms that define spiritual distress, the nursing community can evaluate the patients' spiritual state, whether adverse or beneficial. A similar interest in the spiritual needs of patients is being demonstrated in the mental health profession (Reed, 1991). Where once training for counseling professionals avoided discussions of issues of religion or spirituality (Bracki, Thibault, Netting, Ellor 1990), today, many mental health professionals are
attempting to incorporate spiritual assessment into their practices, especially with older adults (Glamser, 1987; Hogstel, 1989; Ingersoll, 1994; Pipher, 1999; Reed, 1991). Counseling professionals are looking at a broad array of spiritual issues, ranging from church attendance (Reed, 1991), extrinsic and intrinsic religious behaviors (Genia, 1996), to religious coping and grief counseling (Landis, 1996). "One of the most noticeable features of psychiatric care (today) is the tremendous scope of treatment modalities" (Peplau, cited in Reed, 1991, p. 22). For example, one focus of recent research is on the role forgiveness plays in the therapeutic process (Denton & Martin, 1996).

Mainstream psychological research tends to overlook issues of spirituality/religiosity, defending the omission by criticizing existing research on grounds of inadequate theoretical underpinning (Paloutzian, Kirkpatrick, 1995). Given the revival of interest in spirituality in allied professional groups (eg., nursing and counseling), clearly psychology would benefit from a collaborative effort to overcome obstacles which prevent the study of spirituality from enhancing our understanding of lifespan human development.
APPENDIX A
DEFINITIONS OF CRITERIA OF WELL-BEING
Definitions of Criteria of Well-being

Self Acceptance
High Scorer: Possesses a positive attitude toward the self acknowledges and accepts multiple aspects of self including good and bad qualities, feels positive about past life.

Low Scorer: Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than what one is.

Positive Relations with Others
High Scorer: Has warm satisfying, trusting relations with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.

Low Scorer: Has few close, trusting relationships with others; finds it difficult to be warm, open and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

Autonomy
High Scorer: Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.

Low Scorer: Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.

Environmental Mastery
High Scorer: Has sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs.

Low Scorer: Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

Purpose in Life
High Scorer: Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.

Low Scorer: Lacks a sense of meaning in life; has few goals or aims; lacks a sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.

Personal Growth
High Scorer: Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing one's potential; sees improvement in self and behavior over time; is changing in ways that reflect more self knowledge and effectiveness.

Low Scorer: Has a sense of personal stagnation; lacks sense of improvement or expansions over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.

Ryff, 1989
APPENDIX B
DEFINITIONS OF COMPONENTS OF SPIRITUALITY
Definitions of Components of Spirituality

Transcendent Dimension

The spiritual person has an experientially based belief that there is a transcendent dimension to life. The spiritual person believes in the "more"-that what is "seen" is not all there is. He or she believes in an "unseen world" and that harmonious contact with and adjustment to, this unseen dimension is beneficial. The spiritual person is one who has experienced the transcendent dimension, and he or she draws personal power through contact with this dimension.

Meaning and Purpose in Life

The spiritual person has known the quest for meaning and purpose and has emerged from this quest with confidence that life is deeply meaningful and that one's own existence has purpose. The actual ground and content of this meaning vary from person to person, but the common factor is that each person has filled the "existential vacuum" with an authentic sense that life has meaning and purpose.

Mission in Life

The spiritual person has a sense of "vocation." He or she feels a sense of responsibility to life, a calling to answer, a mission to accomplish, or in some cases, even a destiny to fulfill. The spiritual person is "metamotivated" and understands that it is in "losing one's life" that one "finds it."

Sacredness of Life

The spiritual person believes life is infused with sacredness and often experiences a sense of awe, reverence, and wonder even in "nonreligious" settings. He or she does not dichotomize life into sacred and secular, holy and profane, but believes all of life is "holy" and that the sacred is in the ordinary. The spiritual person is able to "sacralize" or "religionize" all of life.

Material Values

The spiritual person can appreciate material goods such as money and possessions but does not seek ultimate satisfaction from them nor attempt to use them as a substitute for frustrated spiritual needs. The spiritual person knows that "ontological thirst" can only be quenched by the spiritual and that ultimate satisfaction is found not in material but spiritual things.

Altruism

The spiritual person believes we are our "brother's keeper" and is touched by the pain and suffering of others. He or she has a strong sense of social justice and is committed to altruistic love and action. The spiritual person knows that "no man is an island" and that we are all "part of the continent" of common humanity.

Idealism

The spiritual person is a visionary committed to the betterment of the world. He or she loves things for what they are yet also for what they can become. The spiritual person is committed to high ideals and to the actualization of positive potential in all aspects of life.

Awareness of the Tragic

The spiritual person is solemnly conscious of the tragic realities of human existence. He or she is deeply aware of human pain, suffering, and death. This awareness gives depth to the spiritual person and provides him or her with an existential seriousness toward life. Somewhat paradoxically, however, awareness of the tragic enhances the spiritual person's joy, appreciation, and valuing of life.
Fruits of Spirituality

The spiritual person is one whose spirituality has borne fruit in his or her life. True spirituality has a discernable effect upon one’s relationship to self, others, nature, life, and whatever one considers to be the Ultimate.

(Elkins et al., 1988)
APPENDIX C
DEMOGRAPHIC FREQUENCIES

63
### Demographic Frequencies

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<th>Percent</th>
<th>Health</th>
<th>Frequency</th>
<th>Percent</th>
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*Time Relig = Time Spent on Religious Practice, Marital St = Marital Status, Non-tradit = Nontraditional Committed Relationship, Work Stat = Work Status.*
APPENDIX D
INFORMED CONSENT
Informed Consent

This questionnaire is designed to determine some of the issues that deal with psychological well-being. This study is being conducted by Sheila Armstrong under the supervision of professor of Psychology Joanna Worthley, Ph. D. We are asking that you take one hour of your time to complete this questionnaire. You will also be asked to give demographic information about yourself. Please be advised that any and all information you provide will be held in strictest confidence.

This study has been approved by the Psychology Department Human Participants Review Board at California State University, San Bernardino. All information collected in this study will be treated as confidential and totally anonymous. At no time will your name be reported along with your responses. All data will be reported in group form only. The results of this study will be available in December, 1998. A follow-up card will be available for those participants requesting the results of this research. You can contact Sheila Armstrong or Joanna Worthley, Ph. D., at the Psychology Department at Cal State San Bernardino (909-880-5595) if you have any questions about this study or when the results will be available. Participation in this study is totally voluntary and you are free to withdraw at any time during this study without any penalty. For students at CSUSB extra credit may be available at the discretion of your instructor.

By placing a mark in the space provided below, I acknowledge that I have been informed of the nature of this study, and that I consent to participate.

Give your consent to participate by making a check mark here: ___

Date____________
Psychological Well-being Scales

Instructions

This study is concerned with your normal, everyday self-perceptions, and self-judgements on a variety of dimensions in your life. The statements address your current thoughts and attitudes. We are not looking for a particular response, so please answer all statements as candidly and accurately as possible.

Please work through the statements quickly and without conferring with others. We want your first, initial responses to the statements. To insure anonymity please do not put your name on this form.

You are to choose a number from the range 1 (strongly disagree) to 6 (strongly agree) for each statement of the first questionnaire and 1 (intensely disagree) to 7 (intensely agree) for each statement on the second questionnaire.

Please circle the most appropriate number.

First Questionnaire

Sample question:

1 = Strongly Disagree  2  3  4  5  6 = Strongly Agree

1. Sometimes I change the way I act or think to be more like those around me.

1  2  3  4  5  6

Second Questionnaire

Sample question:

1 = Intensely Disagree  2  3  4  5  6  7 = Intensely Agree

1. There is a transcendent, spiritual dimension to life.

1  2  3  4  5  6  7

If you have any questions please let me know. Thank you for your participation, it is deeply appreciated.   DSA.
1 = Strongly Disagree  2  3  4  5  6 = Strongly Agree
1. Sometimes I change the way I act or think to be more like those around me.
   1  2  3  4  5  6

2. In general, I feel I am in charge of the situation in which I live.
   1  2  3  4  5  6

3. I am not interested in activities that will expand my horizons.
   1  2  3  4  5  6

4. Most people see me as loving and affectionate.
   1  2  3  4  5  6

5. I feel good when I think of what I’ve done in the past and what I hope to do in the future.
   1  2  3  4  5  6

6. When I look at the story of my life, I am pleased with how things have turned out.
   1  2  3  4  5  6

7. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
   1  2  3  4  5  6

8. The demands of everyday life often get me down.
   1  2  3  4  5  6

9. In general, I feel that I continue to learn more about myself as time goes by.
   1  2  3  4  5  6

10. Maintaining close relationships has been difficult and frustrating for me.
    1  2  3  4  5  6

11. I live life one day at a time and don’t really think about the future.
    1  2  3  4  5  6
1 = Strongly Disagree  2  3  4  5  6 = Strongly Agree

12. In general, I feel confident and positive about myself.
   1  2  3  4  5  6

13. My decisions are not usually influenced by what everyone else is doing.
   1  2  3  4  5  6

14. I do not fit very well with the people and the community around me.
   1  2  3  4  5  6

15. I am the kind of person who likes to give new things a try.
   1  2  3  4  5  6

16. I often feel lonely because I have few close friends with whom to share my concerns.
   1  2  3  4  5  6

17. I tend to focus on the present, because the future nearly always brings me problems.
   1  2  3  4  5  6

18. I feel like many of the people I know have gotten more out of life than I have.
   1  2  3  4  5  6

19. I tend to worry about what other people think of me.
   1  2  3  4  5  6

20. I am quite good at managing the many responsibilities of my daily life.
   1  2  3  4  5  6

21. I don't want to try new ways of doing things--my life is fine the way it is.
   1  2  3  4  5  6

22. I enjoy personal and mutual conversations with family members of friends.
   1  2  3  4  5  6
1 = Strongly Disagree  2  3  4  5  6 = Strongly Agree
23. I have a sense of direction and purpose in life.
   1  2  3  4  5  6
24. Given the opportunity, there are many things about myself that I would change.
   1  2  3  4  5  6
25. Being happy with myself is more important to me than having others approve of me.
   1  2  3  4  5  6
26. I often feel overwhelmed by my responsibilities.
   1  2  3  4  5  6
27. I think it is important to have new experiences that challenge how you think about yourself and the world.
   1  2  3  4  5  6
28. It is important to me to be a good listener when close friends talk to me about their problems.
   1  2  3  4  5  6
29. My daily activities often seem trivial and unimportant to me.
   1  2  3  4  5  6
30. I like most aspects of my personality.
   1  2  3  4  5  6
31. I tend to be influenced by people with strong opinions.
   1  2  3  4  5  6
32. If I were unhappy with my living situation, I would take effective steps to change it.
   1  2  3  4  5  6
33. When I think about it, I haven’t really improved much as a person over the years.
   1  2  3  4  5  6
1 = Strongly Disagree  2  3  4  5  6 = Strongly Agree
34. I don’t have many people who want to listen when I need to talk.
   1  2  3  4  5  6
35. I don’t have a good sense of what it is I’m trying to accomplish in life.
   1  2  3  4  5  6
36. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.
   1  2  3  4  5  6
37. People rarely talk me into doing things I don’t want to do.
   1  2  3  4  5  6
38. I generally do a good job of taking care of my personal finances and affairs.
   1  2  3  4  5  6
39. In my view, people of every age are able to continue growing and developing.
   1  2  3  4  5  6
40. I feel like I get a lot out of my friendships.
   1  2  3  4  5  6
41. I used to set goals for myself, but that now seems like a waste of time.
   1  2  3  4  5  6
42. In many ways, I feel disappointed about my achievements in life.
   1  2  3  4  5  6
43. It is more important to me to "fit in" with others than to stand alone on my principles.
   1  2  3  4  5  6
44. I find it stressful that I can’t keep up with all of the things I have to do each day.
   1  2  3  4  5  6
45. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.

1 2 3 4 5 6

46. It seems to me that most other people have more friends than I do.

1 2 3 4 5 6

47. I enjoy making plans for the future and working to make them a reality.

1 2 3 4 5 6

48. For the most part, I am proud of who I am and the life I lead.

1 2 3 4 5 6

49. I have confidence in my own opinions, even if they are contrary to the general consensus.

1 2 3 4 5 6

50. I am good at juggling my time so that I can fit everything in that needs to get done.

1 2 3 4 5 6

51. I have the sense that I have developed a lot as a person over time.

1 2 3 4 5 6

52. People would describe me as a giving person, willing to share my time with others.

1 2 3 4 5 6

53. I am an active person in carrying out the plans I set for myself.

1 2 3 4 5 6

54. I envy many people for the lives they lead.

1 2 3 4 5 6

55. It's difficult for me to voice my own opinions on controversial matters.

1 2 3 4 5 6
1 = Strongly Disagree  2  3  4  5  6 = Strongly Agree

56. My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.
   1  2  3  4  5  6

57. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.
   1  2  3  4  5  6

58. I have not experienced many warm and trusting relationships with others.
   1  2  3  4  5  6

59. Some people wander aimlessly through life, but I do not.
   1  2  3  4  5  6

60. My attitude about myself is probably not as positive as most people feel about themselves.
   1  2  3  4  5  6

61. I often change my mind about decisions if my friends or family disagree.
   1  2  3  4  5  6

62. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.
   1  2  3  4  5  6

63. For me, life has been a continuous process of learning, changing, and growth.
   1  2  3  4  5  6

64. I often feel like I'm on the outside looking in when it comes to friendships.
   1  2  3  4  5  6

65. I sometimes feel as if I've done all there is to do in life.
   1  2  3  4  5  6
66. Many days I wake up feeling discouraged about how I have lived my life.

1 2 3 4 5 6

67. I am not the kind of person who gives in to social pressures to think or act in certain ways.

1 2 3 4 5 6

68. My efforts to find the kinds of activities and relationships that I need have been quite successful.

1 2 3 4 5 6

69. I enjoy seeing how my views have changed and matured over the years.

1 2 3 4 5 6

70. I know that I can trust my friends, and they know they can trust me.

1 2 3 4 5 6

71. My aims in life have been more a source of satisfaction than frustration to me.

1 2 3 4 5 6

72. The past had it's ups and downs, but in general, I wouldn't want to change it.

1 2 3 4 5 6

73. I am concerned about how other people evaluate the choices I have made in my life.

1 2 3 4 5 6

74. I have difficulty arranging my life in a way that is satisfying to me.

1 2 3 4 5 6

75. I gave up trying to make big improvements or changes in my life a long time ago.

1 2 3 4 5 6
1 = Strongly Disagree 2 3 4 5 6 = Strongly Agree
76. I find it difficult to really open up when I talk with others.

77. I find it satisfying to think about what I have accomplished in life.

78. When I compare myself to friends and acquaintances, it makes me feel good about who I am.

79. I judge myself by what I think is important, not by the values of what others think is important.

80. I have been able to build a home and a lifestyle for myself that is much to my liking.

81. There is truth to the saying you can't teach an old dog new tricks.

82. My friends and I sympathize with each others' problems.

83. In the final analysis, I'm not so sure that my life adds up to much.

84. Everyone has their weaknesses, but I seem to have more than my share.
APPENDIX F
SPIRITUAL ORIENTATION INVENTORY
1. There is a transcendent, spiritual dimension to life.  
   | Intensely Disagree | Intensely Agree |
   | 1 2 3 4 5 6 7 |

2. Whether or not it is always clear to us, the universe is unfolding in a meaningful, purposeful manner.  
   | 1 2 3 4 5 6 7 |

3. When I am old and look back at my life, I want to feel that the world is a little better place because I lived.  
   | 1 2 3 4 5 6 7 |

4. Even such activities as eating, work, and sex, have a sacred dimension to them.  
   | 1 2 3 4 5 6 7 |

5. My primary goal in life is to become financially secure.  
   | 1 2 3 4 5 6 7 |

6. I feel a strong identification with all humanity.  
   | 1 2 3 4 5 6 7 |

7. When I see "what is" I have visions of "what can be."  
   | 1 2 3 4 5 6 7 |

8. While one should not overdo it or become morbid, I think it is good for us to be aware of pain, suffering and death.  
   | 1 2 3 4 5 6 7 |

9. Our highest good lies in harmoniously adjusting ourselves to the transcendent spiritual dimension.  
   | 1 2 3 4 5 6 7 |

10. I know how to contact the transcendent spiritual dimension.  
    | 1 2 3 4 5 6 7 |

11. The universe is not yet done but is unfolding in a meaningful way.  
    | 1 2 3 4 5 6 7 |

12. It is important to search for one's purpose or mission in life.  
    | 1 2 3 4 5 6 7 |

13. I do not divide life into sacred and secular; I believe all of life is infused with sacredness.  
    | 1 2 3 4 5 6 7 |

14. It is much more important to pursue spiritual goals than to pursue money and possessions.  
    | 1 2 3 4 5 6 7 |

15. I seldom show my love for humanity through action.  
    | 1 2 3 4 5 6 7 |
16. In spite of all, I continue to have a deep, positive belief in humanity.

17. I have grown spiritually as a result of pain and suffering.

18. Contact with the transcendent, spiritual dimension has given me a sense of personal power and confidence.

19. I have had experiences in which I felt very close to the transcendent spiritual dimension.

20. The search for meaning and purpose is a worthy quest.

21. I believe life presents one with a mission to fulfill.

22. I have experienced a sense of awe that love between family members can be so deep and special.

23. While money and possessions are important to me, I gain my deepest satisfaction from spiritual factors.

24. I do not feel any sense of responsibility to humanity.

25. I believe the human spirit is powerful and will win in the end.

26. I am a better person today because of life experiences which at the time were painful.

27. I believe that alcoholics, drug addicts, and others whose lives are out of control can be helped through contact with the transcendent, spiritual dimension.

28. I have had transcendent, spiritual experiences in which I felt almost unbearable delight and joy.

29. Answers can be found when one truly searches for the meaning and purpose of one's life.
30. It is more important to me that I be true to my mission than that I succeed in the eyes of the world.

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31. I often experience a sense of awe about the specialness of human beings.

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<td>4 5 6 7</td>
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32. Ultimately, the sole pursuit of money and possessions will leave one empty and unfulfilled.

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<td>Ultimately, the sole pursuit of money and possessions will leave one empty and unfulfilled.</td>
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33. I feel a deep love of all humanity.

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<th>Int. Agree</th>
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<td>33</td>
<td>I feel a deep love of all humanity.</td>
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<td>4 5 6 7</td>
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34. I truly believe that one person can make a difference.

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<td>I truly believe that one person can make a difference.</td>
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<td>4 5 6 7</td>
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35. While we all must die, I believe it is better not to think much about this fact.

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<tr>
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<th>Statement</th>
<th>Int. Disagree</th>
<th>Int. Agree</th>
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<td>4 5 6 7</td>
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36. Contact with the transcendent, spiritual dimension has helped reduce my personal stress level.

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<th>Statement</th>
<th>Int. Disagree</th>
<th>Int. Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Contact with the transcendent, spiritual dimension has helped reduce my personal stress level.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
</tbody>
</table>

37. I have had transcendent, spiritual experiences which seem almost impossible to put into words.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>37</td>
<td>I have had transcendent, spiritual experiences which seem almost impossible to put into words.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
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38. If one has a reason or purpose for which to live, one can bear almost any circumstance.

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<thead>
<tr>
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<td>If one has a reason or purpose for which to live, one can bear almost any circumstance.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
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39. I have a sense of personal mission in life; I feel I have a calling to fulfill.

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<th>Int. Agree</th>
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</thead>
<tbody>
<tr>
<td>39</td>
<td>I have a sense of personal mission in life; I feel I have a calling to fulfill.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
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40. I have never felt a sense of sacredness.

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<tr>
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<th>Int. Disagree</th>
<th>Int. Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>I have never felt a sense of sacredness.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
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</table>

41. I have a spiritual hunger which money and possessions do not satisfy.

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<tr>
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<th>Int. Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>I have a spiritual hunger which money and possessions do not satisfy.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
</tbody>
</table>

42. I am often overcome with feelings of compassion for human beings.

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<thead>
<tr>
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<tbody>
<tr>
<td>42</td>
<td>I am often overcome with feelings of compassion for human beings.</td>
<td>1 2 3</td>
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</tr>
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</table>

43. Idealists are usually just romantic neurotics.

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<td>Idealists are usually just romantic neurotics.</td>
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44. It seems pain and suffering are often necessary to make us examine and reorient our lives.

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<td>It seems pain and suffering are often necessary to make us examine and reorient our lives.</td>
<td>1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>Statement</td>
<td>Intensely Disagree</td>
<td>Intensely Agree</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>45. Contact with the transcendent, spiritual dimension enhanced my physical health.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>46. I have had transcendent, spiritual experiences in which I felt deeply and intimately loved by something greater than I.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>47. My belief that there is a transcendent, spiritual dimension gives meaning to my life.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>48. I am personally devoted to what I consider to be a meaningful cause.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>49. Nature often inspires in me a solemn sense of awe and reverence.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>50. If I had to choose between being rich or spiritual, I would choose to be rich.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>51. People who know me would say I am very loving and reach out to help others.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>52. While there is much evil in the world, I believe goodness, integrity and love also abound.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>53. Contact with the transcendent, spiritual dimension has enhanced my emotional health.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>54. I have had transcendent, spiritual experiences in which I &quot;let go&quot; and surrendered my life to something higher.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>55. The fact that we ultimately have to die shows that life is meaningless.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>56. Humans are sometimes &quot;called&quot; to fulfill a certain spiritual destiny.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>57. I believe it is a mistake to attach sacredness only to religious places, objects, and activities.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>58. Generally, I value love and cooperation more than competitiveness.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
<tr>
<td>59. I believe humans have great potential for goodness and love.</td>
<td>1 2 3 4</td>
<td>5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
60. Contact with the transcendent, spiritual dimension has deepened my relationships with others.

61. I have had transcendent, spiritual experiences in which I felt an unusual oneness with, and acceptance of, the universe.

62. Even though I may not always understand it, I believe life is deeply meaningful.

63. I have either found or am searching for my mission in life.

64. To be honest, I almost never experience a sense of sacredness about anything.

65. There is no hope for the human race.

66. Contact with the transcendent spiritual dimension has helped me to feel closer to my "Higher Power."

67. I have had transcendent, spiritual experiences in which deeper aspects of truth seem to have been revealed.

68. I believe people should just enjoy themselves and not worry about such philosophical issues as the meaning of death.

69. All I really want from a job is an excellent income so that I can live well and enjoy what money can buy.

70. In our modern, scientific world we stop believing in such unscientific ideas as "sacredness."

71. I am very cynical about the human race.

72. Contact with the transcendent, spiritual dimension has helped me to sort out what is really valuable in life from what is not.

73. I have had transcendent, spiritual experiences in which I felt transformed and "reborn" into a new life.
74. One can find meaning even in suffering, pain, and death.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

75. Nonreligious people who think of themselves as being spiritual are deceiving themselves.  

76. It is good to dream of what can be and to "build castles in the air."
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

77. Contact with the transcendent, spiritual dimension gives me optimism and energy to live life wholeheartedly.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

78. I have had transcendent, spiritual experiences in which I was overcome with a sense awe, wonder, and reverence.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

79. Religious people are more spiritual than nonreligious people.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

80. I have never had a transcendent spiritual experience.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

81. Spirituality means being part of a church or temple and actively participating in religious activities.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

82. Emotionally healthy people do not have transcendent, spiritual experiences.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

83. I often experience feelings of awe, reverence, and gratitude even in nonreligious settings.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

84. I often experience feelings of awe and gratitude in regard to my close friendships.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree

85. Persons who talk of life being "sacred" seem a little strange to me; I simply do not experience life in that way.  
Intensely Disagree 1 2 3 4 5 6 7
Intensely Agree
Please tell us about yourself.

Gender: Female____ Male_____ Age____

Education, indicate highest level completed: Elementary____, Junior High____, Some High School____, 12th grade____, Some College____, B.A./B.S.____, Master’s Degree____, PH.D.____.

Ethnic Origin: Native American____, African American____, Mexican American____, Asian American____, European American____, Multiracial____, Other____________________.
(Please Write In)

Personal Health: Excellent____, Good____, Fair____, Poor____.

Religious affiliation: Catholic____, Baptist____, Buddhist____, Jewish____, Lutheran____, Mormon____, Methodist____, Nondenominational Christian____, Other____________________.
(Please Write In)

How strongly religious do you consider yourself to be? Strong____, Somewhat strong____, Not very strong____, Not at all strong____, Can not answer____.

About how often do you spend time on religious practices? Several times per day____, Once a day____, Once per week____, Several times per month____, Once per month____, Several times per year____, Once per year or less____.

Marital Status: Single____, Married____, Never Married____, Divorced____, Widowed____, Nontraditional committed relationship____.

Income Status: 10,000 - 20,000____; 20,000 - 30,000____; 30,000 - 40,000____; 40,000 - 50,000____; 50,000 - 60,000____; 60,000 - 70,000____; 70,000 - 80,000____; 80,000 - 90,000____; 90,000 - 100,000____; 100,000 + ____.

Financial Status: Excellent____, Good____, Fair____, Poor____.

Work Status: Full-time____, Part-time____, Unemployed____, Retired____, Retired - but would like to be working____, Disabled____, Other____________________.
(Please Write In)
Debriefing Statement

You have just participated in a study being conducted to determine the relationship between Psychological Well-being and Spirituality. Psychological Well-Being as used in this study is described by Ryff (1989) as six characteristics (autonomy, self acceptance, positive relations with others, environmental mastery, purpose in life, and personal growth) that define positive functioning across the lifespan. It is the relationship between these dimensions of positive functioning and spirituality (defined in the study as "the quest for knowledge and meaning, both secular and religious") that is the focus of my research. This study is an expansion of previous research on issues of Psychological Well-being, and your participation contributes to a greater understanding of the interaction between the dimensions of Well-being and Spirituality.

All information obtained in this study is completely anonymous. Results will be reported as group data only. At no time will any individual's responses be reported alone.

This study is being conducted by Sheila Armstrong under the supervision of Joanna Worthley, Ph. D., at California State University, San Bernardino. Questions can be directed to either Dr. Worthley or Sheilah Armstrong: 909- 880-5595. If you have any concerns about this study, referral to counseling services is available through the CSUSB Psychology Department. The results of this study will be available by December, 1998. Again, all questionnaires are anonymous.

Student questionnaire packets may be returned to Sheila Armstrong, c/o the Peer Advising Office, JB 105, Cal State San Bernardino. Students will receive a slip verifying participation in this study. Extra credit may be available at the discretion of your instructor.

Thank you for your participation.

Sheila Armstrong
Psychology Department
California State University San Bernardino
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