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A Revision of the Spiritual Well-being Scale

Peter D. Endyke

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A Revision of the Spiritual Well-being Scale

By

Peter D. Endyke

**Presented to the Faculty of the
Graduate School of Clinical Psychology**

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by

Peter D. Endyke

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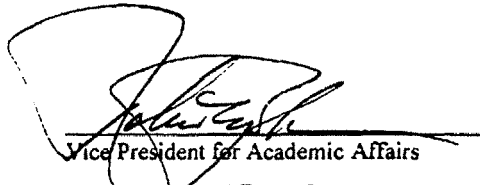
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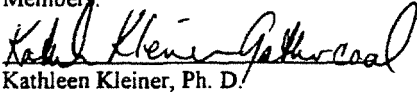
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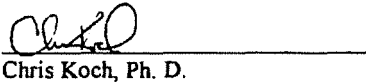

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Kathleen Kleiner, Ph. D.

Date: 7-15-99


Chris Koch, Ph. D.

A Revision of the Spiritual Well-being Scale

Peter D. Endyke

Graduate Student of Clinical Psychology at

George Fox University

Newberg, Oregon

ABSTRACT

Research results indicated the Spiritual Well-being Scale, developed by Ellison and Paloutzian (Paloutzian & Ellison, 1982; Ellison, 1983) suffered from ceiling effects (Ledbetter, et al, 1991). This suggested the Spiritual Well-being Scale might not adequately measure the construct of spiritual well-being, which has implications for the usefulness of the instrument. The purpose of this study was to show that spiritual disciplines are an essential part of spiritual health. Thus, the inclusion of aspects of the spiritual disciplines in the Spiritual Well-being Scale would: 1) reduce the ceiling effects of the scale, 2) increase the variability of the scale, and 3) improve the validity of the scale. Results showed that responses to the spiritual discipline questions included in the Spiritual Well-being Scale – Revised reduced the ceiling effects significantly. Variability of the scale was also improved. Factor analysis revealed two main factors, religious well-being and existential well-being, with spiritual discipline items loading heavily onto the religious well-being factor.

TABLE OF CONTENTS

Approval Page	ii
Abstract	iii
Chapter 1 – Introduction	1
History of the Spiritual Well-being Scale	1
Problems with the Spiritual Well-being Scale	7
Pivotal Role of Spiritual Disciplines in Spiritual Well-being and Spiritual Maturity.....	9
Reliability and Validity	11
Chapter 2 - Methodology	14
Participants	14
Instruments	15
Demographic Questionnaire	16
Procedure.....	16
Data Analysis.....	17
Chapter 3 – Results	20
Correlation.....	20
Principal Components (Exploratory) Factor Analysis.....	21
Reliability	31
Distribution.....	33
Variance	34

Chapter 4 - Discussion	36
References	39
Appendix A –Spiritual Well-being Scale - Revised	43
Appendix B – Demographics Questionnaire.....	46
Appendix C – Explanation of Raw Data.....	48
Appendix D – Curriculum Vita	60

List of Tables

Table 1 – Correlation Coefficients.....	21
Table 2 – Factor Analysis Final Statistics.....	23
Table 3 – Factor Analysis Forced One Factor Matrix	24
Table 4 – Factor Analysis Forced Two Factor Matrix.....	26
Table 5 – Factor Analysis Forced Three Factor Matrix.....	29
Table 6 – Internal Consistency for the Spiritual Well-being Scale - Revised.....	32
Table 7 – Frequencies and Descriptives for Dependent Measures.....	34

Chapter 1

Introduction

History of the Spiritual Well-being Scale

During the 1960's and 1970's, there was a movement centered on the concept of the "well-being" of the individual. The term "well-being" began to be objectively researched when the U.S. Government conceptualized well being strictly in economic terms, using mainly monetary values during the latter part of the 1960's. Subsequent research in the late 1960's and early 1970's suggested that, although economic indicators do play a role in one's overall well-being, they did not alone account for, and, therefore, were insufficient alone to explain one's overall well-being (Moberg, 1971). The research on "well-being" was in its infancy.

As a result, in the very late 1960's and early 1970's, interest turned towards measuring people's well-being beyond economic indicators alone. A wider variety of objective indices were studied, such as physical and mental health, education, housing, social participation, and alienation. This trend of research was called "The Social Indicators Movement." Within this movement was incorporated a "Quality of Life" (QOL) sub-index (Moberg, 1979, p.2). QOL included many of the objective indices mentioned in the Social Indicators Movement, as well as newer, more subjective measures, including happiness (McCall, 1975), life satisfaction (Campbell, Converse, & Rodgers, 1976), and psychological well-being (Bradburn, 1969).

Moberg (1971) thought the impetus for this research on more subjective measures was in part due to a growing awareness of “social justice” which occurred in the 1960’s.

During this time (late 1960’s, early 1970’s), after a long-standing popularity, Behaviorism began to be criticized openly for not acknowledging the existence of internal psychological events. Simultaneously, mention of the term “spirituality” was occurring more frequently in disparate circles, secular as well as religious. A surge of interest and acceptance of different forms of spirituality occurred, and the word “spiritual” became trendy. The zeitgeist of scientism waned.

This “spirituality” trend specifically branched out into “mainstream” religions such as Christianity and Judaism, which experienced revival, as well as the more novel or “new age” religions. For perhaps the first time in America, alternative contexts of “spirituality” were popularized, such as music, nature, physical exercise, and more negatively, drugs and the occult. The groups that pursued this broader conceptualization of spirituality shared a common goal, which was to “awaken, develop and maintain spirituality” (Moberg, 1971, p.1).

Despite this trend, there had not been any mention of spirituality in the “well-being movement” until a researcher named David Moberg conceptualized the term, “spiritual well-being” in 1971. Moberg was conducting research to develop social indicators of well-being for the quality of life movement, when he recognized a need to include indices of spirituality as a factor in overall well-being. He conceptualized the lack of spirituality as being a factor in what he labeled “unhappiness psychopathology.”

To further explain the current situation with spiritual well-being, the roots of the current dichotomy of spirituality and psychology need to be discussed. Around the turn of the century, Sigmund Freud’s influence spread rapidly. Prior to this, mental problems were generally

considered to be spiritual in nature, and treatments were mainly moral or religious (Swenson, 1981). As reported by Hutch (1983), Freud believed there was no God, and that the concept of God came about as a projected father figure. He saw spiritual thought as a projection of an unconscious desire for an omniscient father on whom one could remain forever dependent. As a result “he therefore strongly rejected the relevance of spirituality in human development” (Ganje-Fling, & McCarthy, 1991 p 103). His influence and others sought to make psychology an empirical science free of the mystical and supernatural. This created a rift between psychology and spirituality, which continued to exist without many questions up until the late 1960’s “spirituality” movement. Unfortunately, this phenomenon still exists today. Many think that the loss of spirituality as an important factor in one’s psychological makeup is detrimental to the field of psychology (e.g., Mowrer, 1961). However, interest and research into spirituality as a factor in overall psychological well-being emerged with the conceptualization of spiritual well-being in the 1970’s.

Research and literature in this area grew steadily during this period (Moberg, 1971; McCall & Storrs, 1975; Campbell, 1976; National Interfaith Coalition on Aging, 1975; & Gallup, 1980). Several of these studies suggested spirituality was a factor in everyday well-being. For example, Gallup (1980) conducted a poll, which revealed that religion was very important to a large proportion of the U.S. population. Also, the National Interfaith Coalition on Aging’s (1975) research on the elderly in America showed that this population relies on spirituality and religion to help them adapt to the difficulties of old age. They defined spiritual well-being as, “the affirmation of life in relationship with God, self, community and environment that nurtures and celebrates wholeness” (p.1).

Moberg theorized in the 1970's (Moberg, 1971, 1979) that spiritual well-being consists of a horizontal and a vertical dimension. The horizontal dimension is the existential dimension, or existential well-being. It measures how well people relate to each other, if they have a purpose or meaning in life, and if they have a sense of life satisfaction. The vertical dimension measures religious well-being, which is well-being that comes from a relationship with God.

Several years later, Angus Campbell (1976, 1981) conducted research on the subjective indices of well-being, and he appeared to either ignore or minimize spirituality as a factor in well-being. He stated that well-being consisted of three needs: 1) the need for having, 2) the need for relating, and 3) the need for being. The need for having material goods such as furniture, cars, money, etc. was considered a less significant factor by Campbell, although some material goods were considered essential, such as food, water, clothing and shelter. Ellison (1983), while developing the Spiritual Well-being Scale (SWBS) theorized that there was a fourth need: the need for transcendence. Ellison believed that there was a sense of well-being one experiences from a non-physical dimension of experience and awareness named "transcendence," which relates directly and indirectly to finding an ultimate meaning and purpose in life. The goal of the spirit of humans is meaning and purpose in life that is related more towards a divine reality than towards earthly reality. He saw all the major world religions as believing transcendence is integral to overall well-being.

Ellison (1983) theorized that the spirit is an integrative force between the psyche and soma, and all three are affected by each other. Therefore, if the psyche's thoughts and feelings were corrupted, then to some extent, so would be the spirit and the body. He also believed that the spirit is affected to a lesser extent by somatic problems, and often it allows human beings to rely more on the spirit to transcend physical handicaps.

Ellison (1983) also theorized that spiritual well-being is different than spiritual health. He saw spiritual health as an underlying state of which spiritual well-being is an expression. That is, it is a sign or symptom of a person's spiritual health in much the same way skin tone or body temperature reflects physical health. Spiritual well-being is, therefore, one way of measuring spiritual health. This theoretical "symptom of spiritual health" concept appears practical in attempting to delineate the size and shape of spiritual health (Moberg, 1979).

In other research, Bufford (1984) contrasted spiritual well-being and spiritual maturity, stating, "The Spiritual Well-being Scale is roughly analogous to a measure of physical health, whereas the Spiritual Maturity Scale is roughly analogous to a measure of physical development" (p. 7). Spiritual well-being is more a measure of the indwelling of the spirit in a human being, and a subsequent realization that there is a need for meaning and purpose in life beyond the earthly in alignment with a divine reality. These are the basic building blocks of spiritual health, which the Spiritual Well-being Scale attempts to measure. By contrast, spiritual maturity is the result of the culmination of years of spiritual development. This development occurs as one pursues a relationship with God and attempts to improve that relationship by doing God's will. Spiritual disciplines are traditional, ancient ways of pursuing this relationship. This so called spiritual maturity would occur only after a significant period of time in which the indwelling of the spirit, and the recognized need for transcendence, had occurred and prompted one towards spiritual maturity. Therefore, one could have spiritual well-being before one reached a level of spiritual maturity. In order to maintain spiritual maturity, however, one must have spiritual well-being. This is analogous to one needing physical development in order to maintain one's physical health.

The story of King David in the Old Testament of the Bible illustrates Bufford's (1984) conceptualization of the difference between spiritual well-being and spiritual maturity. David wrote many deeply spiritual Psalms, which suggests an indwelling of the Holy Spirit, as well as a powerful need for transcendence (spiritual well-being). David also had a strong desire to deepen his commitment to and understanding of God, which is the definition of spiritual maturity. As we read about David's life, we can safely say he had met the criteria of both spiritual well-being and spiritual maturity. However, Bufford maintains David lost his sense of spiritual well-being when he succumbed to the lust he felt for Bathsheba (2 Samuel 11-12). This was the result of his rejection of the guidance of the indwelling Spirit, and of the holiness and morality, which it imparts to the human soul. The indwelling of the Spirit also motivates one to maintain one's spiritual well-being and spiritual maturity through the deeply rewarding relationship one receives with God.

The result was that David's spiritual well-being was diminished to the point where he no longer felt well spiritually. According to this theory, spiritual maturity cannot survive intact in a person who suffers from spiritual sickness. The need for transcendence leads to the indwelling of the Holy Spirit (spiritual well-being) and is what inspires the soul to achieve maturity. In addition, once maturity is obtained, it cannot survive without spiritual well-being in order to have spiritual maturity one must be committed to God and his purposes. When one rejects the Holy Spirit and the need for transcendence, one has rejected God and is no longer committed.

Finally, spiritual well-being was conceptualized by Ellison (1983) to be a continuous variable; that is, it does not either discretely exist or not exist in a human being. Rather, spiritual well-being exists in varying degrees. Therefore, it is theorized that people who do not seek transcendence have little or no transcendent purpose in life. Therefore, they have little

experience with the indwelling of the Spirit. They would score low on the Spiritual Well-being Scale because they would have low spiritual well-being. In contrast, people who seek transcendence, and/or have experienced the indwelling of the Spirit would have higher levels of spiritual well-being and would score high on the Spiritual Well-being Scale.

Problems with the Spiritual Well-being Scale

Over 400 empirical studies have been conducted on the Spiritual Well-being Scale since its inception in 1978. It has since been used primarily as a research instrument. Most of the studies conducted on the Spiritual Well-being Scale have focused on identifying correlates of spiritual well-being. Recently, the long awaited norms for the Spiritual Well-being Scale have been gathered as well (Bufford, Paloutzian, & Ellison, 1991).

One of the major problems with the Spiritual Well-being Scale is “ceiling effects” (Moody, 1989; Boliou, 1989). A “ceiling effect” occurs when a test is negatively skewed and subjects taking the test score mainly on the high end of the distribution. Ledbetter, Smith, Fischer, Vosler-Hunter, and Chew (1991) evaluated 17 religious and non-religious samples and found the Spiritual Well-being Scale measured four standard deviations below the mean, but only one to one and a half standard deviations above the mean. This was especially true for conservative Christian populations who tended to score the highest. These results indicate the Spiritual Well-being Scale is limited in its ability to adequately measure higher levels of the construct of spiritual well-being. In addition, in Moody’s (1989) study the mean score for non-Christian populations was significantly lower than those of conservative Christians. This has consequences in regards to psychometrics, in that relationships to other previously reported variables would be underestimated or attenuated for religious samples (Ledbetter et al, 1991). These results demonstrate that the Spiritual Well-being Scale tends to be negatively skewed in

religious populations, and cast doubt on whether the Spiritual Well-being Scale is useful as a clinical instrument other than identifying subjects who score low and are likely to be in distress. (Bufford et al., 1991).

There have been many attempts to improve the Spiritual Well-being Scale. Brinkman (1989) attempted to solve the problem of a low ceiling effect by changing how the response is measured. He postulated that changing the six-point Likert scale to a continuous percentage scale from 1 to 100 would improve response variability. He believed “the current six point Likert scale does not seem to be as discriminating as it needs to be” (p. 127). The results indicated that the continuous percentage scale did not adequately reduce the problem of a low ceiling, nor did it change the basic shape of the frequency distribution.

In a similar vein, Meyers (1986) changed the response format from its original Likert scale to look like this:

Always true			Never true		
1	2	3	4	5	6

He found the revised response format reduced the mean in his sample, but not enough to be significant, or of any practical value to the test. He concluded changing the Likert scale format was unwarranted.

Roid, Endyke, Engelhardt, McCoy, and Roberts (1995) attempted to solve the low ceiling effect by “brainstorming” over 100 questions thought to be related to spiritual well-being. They then asked fellow graduate students to rate the questions on a 1-10 scale with 1 meaning no relationship to spiritual well-being, and 10 meaning a perfect relationship to spiritual well-being. They then added the 20 highest rated questions into the Revised Spiritual Well-being Scale. Items were then analyzed statistically. Although this procedure did reduce ceiling effects and

broaden distribution of scores, results were not statistically significant. Finally, several researchers (Cooper, 1986; Davis et al., 1987; Ellison & Economos, 1981) have attempted to broaden the distribution of the scale by providing additional instructions aimed at asking participants to be as honest as possible. These changes did not solve the problem of a low ceiling, nor significantly contribute to its reduction.

Bufford, Paloutzian, and Ellison (1991), in discussing what needs to be conducted in the area of future research on the Spiritual Well-being Scale, reported that the ceiling effects on the Spiritual Well-being Scale may be improved by simply sampling a wider range of religious beliefs than those of conservative Christians. Thus, ceiling effects may be related to sampling consideration (Boliou, 1989).

The major purpose of this study is to determine if adding items relating to spiritual disciplines to the SWBS reduces the ceiling effect problem and increases response variability. By sampling a broader range of subjects, this study also hopes to provide further evidence that the scores of conservative Christians suffer from higher means and ceiling effects than the general population.

Pivotal Role of Spiritual Disciplines in Spiritual Well-being and Spiritual Maturity

In the early 1980's, Craig Ellison developed the Spiritual Maturity Index (SMI). He postulated people who are spiritually mature could transcend themselves, or move beyond themselves and towards the moral ideals associated with a higher power. Their identity becomes based upon their relationship with God, and their daily activities are formed around their spiritual beliefs and practices. As a result, they can cope better with suffering, and can be more autonomous and self-principled. They also adhere more to conventional beliefs as a result of reflection and experience (Ellison, Rashid, Patla, Calica, & Haberman, 1984). Ellison concluded

that spiritual maturity is the result of many years of reflection and experience, and being willing to become spiritually mature requires discipline and effort.

Spiritual disciplines are defined simply as asceticism. Asceticism is denial of the self and the desires of the flesh. The goal of asceticism is to cleanse oneself of “earthly” thoughts and desires. The result is a better understanding of a divine reality and of ultimate meaning and purpose in life. According to Elton Trueblood (1972), “Asceticism is a valid part of religion or of any other important enterprise” (p.94). Ellison postulated therefore that spiritual disciplines are involved in the process of achieving spiritual maturity.

In addition, seeking God through the use of spiritual disciplines results in a powerful recognition of the need for transcendence or communion with God. This is synonymous with the concept of spiritual well-being. The result of years of the pursuit of a relationship with God, and the reflection and experiences that result, produce spiritual maturity. Without discipline and effort, one cannot reach maturity, maintain an indwelling of the spirit, or recognize the need for transcendence. In the Christian faith, it is believed you cannot earn your salvation, however it is also believed that faith without works is dead (James 2:17). So it appears spiritual disciplines are a part of spiritual maturity as well as spiritual wellbeing.

The hypothesis of this study is that spiritual disciples are an important factor in spiritual maturity as well as spiritual wellbeing. To help describe this relationship further, imagine spiritual wellbeing to be analogous to physical health as Bufford (1984) has described it. Next, imagine spiritual maturity to be compared to physical development or a kind of physical maturity. Finally, imagine the spiritual disciplines to be akin to proper nutrition, exercise, and rest; that is, taking good care of one’s body. As the analogy plays out, we can observe the widely held view that proper nutrition, exercise, and rest is needed for physical health *as well as*

physical development. Similarly, spiritual disciplines are needed for spiritual maturity as well as spiritual wellbeing.

Physical development is the level of growth or maturity of all body parts and systems. To maintain physical health, the body must respond to the physical demands placed upon it by the environment. As this occurs over and over, physical development gradually occurs. Subjecting bodies to more rigorous exercise leads to an increase in physical health, as well as an increase in physical development. Similarly, human beings require the demands of the spiritual disciplines in order to maintain spiritual well-being, as well as to develop spiritual maturity. Spiritual disciplines are exercises which contribute to spiritual maturity and take a lifetime to master. At the same time, one's level of spiritual well-being is also maintained by these practices. This has not been examined by any previous research on the Spiritual Well-being Scale, and is a proposed outcome of this research.

Reliability and Validity

Reliability is the consistency of a test or measurement. Test-retest consistency for the Spiritual Well-being Scale was assessed after one, four, and ten weeks (Ellison, 1983; Upshaw, 1988; Brinkman, 1989). Results showed reliability above .85 in these three samples. Tests of internal consistency demonstrated coefficients above .84 in seven samples (Paloutzian & Ellison, 1982; Kirschling & Pittman, 1989; Brinkman, 1989). These data indicate the Spiritual Well-being Scale is a reliable instrument.

Validity refers to the extent an instrument measures what it purports to measure. It is the most important criterion for a psychometric tool to achieve. Types of validity include: (a) content validity, which "refers to the representatives of the items of the measuring instrument" (Wood, 1981, p. 25; 2); (b) criterion validity, "which is determined by comparing results of a test with an

external criterion or standard” (p.25; 3); and (c) construct validity, which “assesses the extent to which a test measures a theoretical construct or trait” (Ledbetter et al., 1991, p.95). Several types of techniques designed to accumulate the data needed to establish construct validity include correlation with other tests, experimental intervention, factor analysis, internal consistency, and discriminate and convergent validation (Anastasi, 1988).

The construct of spiritual well-being may not be fully measured by the Spiritual Well-being Scale. People with medium to high levels of spirituality may all score fairly high on the scale. Thus, the Spiritual Well-being Scale cannot successfully differentiate between those who have high and moderately high levels of spiritual well-being. It is logical, assuming spiritual well-being is a continuous variable, there is something inherent in the construct of spiritual well-being that the Spiritual Well-being Scale is not currently able to measure.

Since all humans must contribute some effort towards their own development physically and mentally, it is theorized that God also wants them to make an effort to grow spiritually. Willard (1991) states that during Christ's last evening alive he spent time in the Garden of Gethsemane. There, his disciples were full of good intentions on how to proceed but were lost on what to do without Jesus' leadership. Jesus understood their condition. He advised a course of action that would enable them to “do what he knew they sincerely wanted to do” (p. 151). Willard concludes that when Christ told the disciples to engage in vigil and prayer, he knew they would be able to reach a level of “spiritual responsiveness and power that would be impossible without it” (p.151). Christ showed his disciples how to have a powerful relationship with God, which would result in a better understanding of godliness and righteousness. If followed, this would lead them into a more harmonious relationship with God and others and would lead to higher spiritual well-being.

By entering into the presence of God, and bringing ourselves to cooperate with him accomplished through the use of spiritual disciplines, we experience a power and a vision that is beyond ourselves. When this occurs, higher levels of spiritual well-being result. Thus, spiritual disciplines are an important factor to spiritual well-being. It seems likely that people are more varied in their exercise of these disciplines than in aspects currently measured on the Spiritual Well-being Scale. Therefore, it is proposed that adding items to measure the practice of these disciplines will reduce the ceiling effects on the current Spiritual Well-being Scale.

We must consider also that many spiritual disciplines span several religions. Meditation, prayer, study, simplicity, solitude, submission, service, confession, worship, celebration, and others are broadly recognized methods of spiritual formation. They have all been employed by several major religions to aid humans in finding a closer relationship with God or improving one's spirituality. The disciplines, which will be added to the scale include: meditation, prayer, study, simplicity, solitude, submission, service, confession, worship, and celebration. These spiritual disciplines are essential to spiritual health and to include these disciplines in the Spiritual Well-being Scale will: 1) reduce the ceiling effects of the scale, 2) increase the variability of the scale, and 3) improve the validity of the scale.

Chapter 2

Methodology

The original Spiritual Well-being Scale is a twenty-item inventory with two major identified factors: religious well-being and existential well-being. Each is measured by ten items. It was revised by adding ten questions pertaining to spiritual disciplines. The primary objective of this research is to determine if adding questions relating to the spiritual disciplines improves the Spiritual Well-being Scale's reliability and validity. That is, it's ability to measure spiritual well-being consistently and accurately.

Participants

The participants for this study were a convenience sample of the population of a city of approximately 1.7 million people in Oregon. A representative sample was not obtained by random selection, which is a procedure "that eliminates any systematic bias in the selection process, where each subject in the population being considered has an equal chance of being selected, and the selection of one subject does not influence the selection or non-selection of another" (Wood, 1981, p.68). Participants in this research were obtained by asking people to volunteer at various malls in the Portland, Oregon, metropolitan area. The participants were recruited from the mall "food courts," after they consumed some food and/or beverage.

The final sample consisted of 90 (60%) females and 60 (40%) males; 15 (10%) were African-American, 3 (2%) were Asian, 2 (1.5%) were racially mixed, and 129 (86.5%) were

Caucasian. One participant was Hispanic. However, this participant was excluded due to concerns regarding language differences. The large majority of participants were Caucasian (86.5%). 15 (10%) of the participants were African-American, 3 (2%) were Asian, 2 (1.5%) were racially mixed, and 1 was Hispanic. It was attempted to exclude Hispanics from this study due to a large number of local migrant workers who are not bilingual. Ages of participants ranged from 18 to 75 years, with a mean age of 42. Number of years in school ranged from 10 to 21 years, with a mean number of years in school of 14.5. Income data were not collected, however the participants were suspected to be predominantly middle to upper middle class. Eighty-eight participants (58%) claimed to accept Christ as their personal savior. In addition, 31 participants (21%) stated that they accepted some or all of Christian ethical principles. In general, the participants were predominantly Caucasian, female, middle class, and Christian. However, a wide range of races, religions, incomes, education, and ages were sampled.

Instruments

The Spiritual Well-being Scale is a twenty-item inventory consisting of ten questions relating to religious well-being (RWB), and ten relating to existential well-being (EWB). The test uses a six-point "Likert" scale which ranges from strongly agree (SA) to strongly disagree (SD), with no midpoint. This type of scale allows quantitative, uni-dimensional comparisons to be made among individuals taking the Spiritual Well-being Scale. Added to this test were ten questions relating to spiritual disciplines for a total of 30 questions on the new test. Questions pertaining to spiritual disciplines added to the scale were adapted from Foster (1988). Reiland (1989) discusses Foster's book Celebration of Discipline in his program entitled Joshua's Men, and developed a questionnaire with subtly face valid questions. They attempt to measure

people's level of devotion to various spiritual disciplines. Reiland's questions were used as spiritual discipline questions for the Spiritual Well-being Scale – Revised.

The original Spiritual Well-being Scale alternated religious well-being and existential well-being questions. Therefore, in the revision of the Spiritual Well-being Scale, a question pertaining to spiritual disciplines was alternated between every third question. The disciplines measured and location on the new test were; (a) confession (question 3), (b) submission (question 6), (c) guidance (question 9), (d) prayer (question 12), (e) meditation (question 15), (f) fasting, meditation and solitude (question 18), (g) worship (question 21), (h) simplicity (question 24), (i) study (question 27), and (j) forgiveness (question 30).

Demographic Questionnaire

A one page demographic questionnaire was included as the last page in the test packet for all participants. It requested information on age, gender, race, education, and religious orientation. The religious orientation section included Christianity, Judaism, Muslim, Buddhism, Atheism, Humanism, Agnosticism, New Age, or other. The last question attempted to further distinguish between types of Christians by asking if the person: (a) respected the teachings of Christ and attempted to follow some of his moral/ethical principles, (b) respected the teachings of Christ and attempted to follow all his moral/ethical principles, (c) accepted Christ as their personal Savior, and attempted to follow some of his moral/ethical principles, and (d) accepted Christ as their personal Savior, and attempted to follow all of his moral/ethical principles.

Procedure

The study was conducted by observing diners in the food court at local malls and asking those who had finished consuming food or beverage, or were waiting for someone, to participate in the research. Volunteers were given the Spiritual Well-being Scale – Revised and the

demographics questionnaire. The Spiritual Well-being Scale – Revised contains previous Spiritual Well-being Scale questions, as well as ten additional spiritual discipline questions.

According to Wood (1981, p. 178), “There is a relationship between sample size and the precision of estimates; precision increases as sample size increases.” Another advantage of a large sample size is that it minimizes chance fluctuations. Thus, the large sample size in this study will increase the effectiveness of adding questions pertaining to spiritual disciplines if: (a) the skews of the distribution decreased by a significant degree, and, (b) the sample size was large enough to reduce the possibility of this change being due to chance, (c) minimize chance fluctuations due to error, and (d) maximize the precision of an effect.

Data Analysis

The “ceiling effect” of the Spiritual Well-being Scale—the fact that it has a positively skewed distribution—is a major flaw in the current Spiritual Well-being Scale. One of the goals of this research was to increase the variability within a sample of subjects who take the test. If the variance or the sum of the squared deviations of each score from the mean divided by the number of scores minus one increases overall, then the distribution would become more mesokurtic or normal. To determine if the variance had increased, an *F*-test for homogeneity of variance was conducted. Since the Spiritual Well-being Scale – Revised has ten more (spiritual discipline) items than the original Spiritual Well-being Scale, the mean item score was prorated so the Spiritual Well-being Scale – Revised mean and standard deviation could be compared to the values on the original Spiritual Well-being Scale.

Variances were tested for religious well-being, existential well-being, and spiritual disciplines to determine if spiritual disciplines had a greater variance than the other two variables. The means of the spiritual disciplines were also analyzed to determine if religious

well-being and existential well-being means are greater than spiritual disciplines means. Internal consistencies were also analyzed. Test-retest reliability was not conducted due to time constraints and sampling procedures.

There have been several factor analyses conducted on the Spiritual Well-being Scale. Ellison (1983) reported conducting an item level factor analysis. The results showed religious well-being items loaded onto the originally conceptualized religious well-being factor well, but items considered to be part of the existential well-being factor loaded onto two sub-factors, which appeared to be related to existential well-being. Ledbetter has questioned these results, et al. (1991) who stated that the results were not clearly reported and the factors were not rotated appropriately. Cooper (1986) and Davis, Longfellow, Moody, and Moynihan (1987) combined items from the Spiritual Maturity Index (SMI), and the Spiritual Well-being Scale. Their objective was to determine, through exploratory factor analysis (a multivariate statistical operation which analyzes the relationships among items in the scales), whether or not the items could be reduced to a small number of variables. The results of these studies concluded that one dominant general factor emerged. This provided some indication that questions pertaining to spiritual maturity, including items relating to spiritual disciplines, might be related to spiritual well-being.

Ledbetter, et al. (1991) stated that exploratory factor analysis was a problem with studies conducted by Cooper (1986) and Davis et al. (1987) because the statistical procedure does not confirm a priori hypothetical factors. Ledbetter et al. then conducted a confirmatory factor analysis, which allowed the researcher to “determine a priori which observed variables are affected by which common factors” (p. 95). Results of this study suggested that the fit for both the one factor model (swb) suggested by Gorsuch (1984) and the two factor model proposed by

Ellison (1983) were poor. “Neither provided a statistically satisfactory overall conceptualization of the observed interrelationship of the SWBS items” (p. 99). Ledbetter et al. concluded, “additional factors or a reorganization of items into different factors are required to explain the results” (p. 99).

The newly hypothesized additional factor for this study was spiritual disciplines (sd) due to its already established relationship to spiritual maturity in a prior factor analytic study (Davis et. al., 1987).

An exploratory factor analysis was conducted due to its convenience, and also because it might reveal additional factors of the Spiritual Well-being Scale. The original hypotheses include: (a) spiritual disciplines are related to spiritual well-being, (b) the inclusion of spiritual disciplines helps with reduction of ceiling effects, and (c) a triad of factors (religious well-being, existential well-being, & spiritual disciplines) would emerge and better explain the construct of spiritual well-being.

Chapter 3

Results

This chapter discusses the results of adding spiritual discipline items to the Spiritual Well-being Scale. This section includes: (a) correlational analyses between factors, as well as the previous and revised spiritual well-being scales; (b) the results of exploratory factor analysis, and a forced 1, 2, and 3-factor analysis; (c) the results of reliability testing; and (d) the results of distribution data.

Correlation

In this sample, the Spiritual Well-being Scale correlation with the religious well-being scale was .90, the existential well-being scale was .74, and the spiritual disciplines scale was .74. The Spiritual Well-being Scale - Revised correlation with the religious well-being scale was .92, the existential well-being scale was .66, and the spiritual disciplines scale was .88. The religious well-being scale's correlation with the existential well-being scale was .39, and the spiritual disciplines scale was .79. Finally, the existential well-being scale's correlation with the spiritual disciplines scale was .36 (see Table 1).

Table 1

Correlation Coefficients Among the Sub-scale and Total Scoresfor the Spiritual Well-being Scale and the Spiritual Well-being Scale - Revised

<u>Sub-scale</u>	<u>EWB</u>	<u>RWB</u>	<u>SD</u>	<u>SWBS</u>	<u>SWBSR</u>
EWB	--				
RWB	.39	--			
SD	.36	.79	--		
SWBS	.74	.90	.74	--	
SWBSR	.66	.92	.88	.97	--

Note: $N = 150$. EWB = existential well-being, RWB = religious well-being, SD = spiritual disciplines, SWBS = Spiritual Well-being Scale, SWBS-R = Spiritual Well-being Scale-Revised

Principal Components (Exploratory) Factor Analysis

Exploratory factor analysis for The Spiritual Well-being Scale - Revised initially revealed five factors with eigenvalues greater than 1.0. Eigenvalues were 10.95, 3.58, 1.68, 1.26, and 1.13 respectively (see Table 2). Based on a screen plot, principal components factor analysis also suggested a two or possibly three factor solution, with religious well-being being Factor 1 and existential well-being being Factor 2. The newly added spiritual discipline items loaded mainly onto the religious well-being factor (see Table 3).

There were two main exceptions to this. The question (SD02), "I do not struggle with pride or control issues," which appears to be poorly related to any of the other spiritual discipline items or the original Spiritual Well-being Scale items, was not related to Factor 1 (-.02 eigenvalue on Factor 1). This item loaded mainly on Factor 6 (-.58 eigenvalue). This question also loads onto Factor 5, with an eigenvalue of .41. The question (SD10), "I struggle letting go of minor injustices done to me," loads mainly on Factor 3. In addition, the question (SD01), "there is no unconfessed sin in my life," did not load well with religious well-being (eigenvalue of .12). It mostly loaded onto Factor 3 (eigenvalue of .42). Table 3 shows how the spiritual discipline questions load mainly with religious well-being (Factor 1), with the exception of SD02, SD10, and SD01. All religious well-being items loaded heavily onto Factor 1, with eigenvalues ranging from .69 to .86. Existential well-being items loaded mainly onto Factor 2, with the exception of the question, which states, "I do not know who I am, where I came from, or where I am going."

Table 2

Principal Components Factor Analysis of the Spiritual Well-being Scale-Revised: Final Statistics

<u>Factor</u>	<u>Eigenvalue</u>	<u>Percent of Variance</u>	<u>Cumulative Percent</u>
1	10.95357	39.1	39.1
2	3.58367	12.8	51.9
3	1.67936	6.0	57.9
4	1.26144	4.5	62.4
5	1.13350	4.0	66.5

Note: N = 150.

Table 3

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced One-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>
RWB01	1	.688
RWB02	4	.753
RWB03	7	.732
RWB04	10	.857
RWB05	13	.758
RWB06	16	.830
RWB07	19	.788
RWB08	22	.854
RWB09	25	.825
RWB10	28	.827
EWB01	2	.340
EWB02	5	.428
EWB03	8	.301
EWB04	11	.421
EWB05	14	.490
EWB06	17	.290

(Table 3 continues)

Table 3 (continued)

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced One-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>
EWB07	20	.313
EWB08	23	.137
EWB09	26	.360
EWB10	29	.560
SD01	3	.121
SD03	9	.783
SD04	12	.830
SD05	15	.685
SD06	18	.568
SD07	21	.777
SD08	24	.250
SD09	27	.663

Final Statistics:

<u>Factor</u>	<u>Eigenvalue</u>	<u>Pct of Var</u>	<u>Cum Pct</u>
1	10.954	39.1	39.1

Note: N = 150. EWB = existential well-being, RWB = religious well-being

SD = spiritual disciplines

A forced two-factor analysis was subsequently conducted (see Table 4). In this analysis, religious well-being and spiritual discipline questions generally loaded onto Factor 1, while existential well-being items generally loaded onto Factor 2. In addition, most of the religious well-being and spiritual discipline questions loaded negatively onto Factor 2, which suggests they may be negatively related. Finally, a forced three factor analysis was conducted (see table 5). The result of the addition of a third factor explained 6% of the variance, whereas the first factor explained 39%, and the second factor explained 13%.

Table 4

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced Two-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>	<u>Factor 2</u>
RWB01	1	.688	-.200
RWB02	4	.753	-.190
RWB03	7	.732	-.124
RWB04	10	.857	-.107
RWB05	13	.758	.165
RWB06	16	.830	-.126
RWB07	19	.788	.020
RWB08	22	.854	-.180

(Table 4 continues)

Table 4 (continued)

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced Two-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>	<u>Factor 2</u>
RWB09	25	.825	-.305
RWB10	28	.827	-.197
EWB01	2	.340	.121
EWB02	5	.428	.533
EWB03	8	.301	.530
EWB04	11	.421	.633
EWB05	14	.490	.696
EWB06	17	.290	.682
EWB07	20	.313	.680
EWB08	23	.137	.382
EWB09	26	.360	.586
EWB10	29	.560	.272
SD01	3	.121	.135
SD03	9	.783	-.164
SD04	12	.830	-.152
SD05	15	.685	-.183

(Table 4 continues)

Table 4 (continued)

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced Two-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>	<u>Factor 2</u>
SD06	18	.568	.001
SD07	21	.777	-.192
SD08	24	.250	.316
SD09	27	.663	-.277

Final Statistics:

<u>Factor</u>	<u>Eigenvalue</u>	<u>Pct of Var</u>	<u>Cum Pct</u>
1	10.953	39.1	39.1
2	3.584	12.8	51.9

Note: N = 150. EWB = existential well-being, RWB = religious well-being
SD = spiritual disciplines

Table 5

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced Three-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
RWB01	1	.688	-.200	-.262
RWB02	4	.753	-.190	-.249
RWB03	7	.732	-.124	-.361
RWB04	10	.857	-.107	.011
RWB05	13	.758	-.165	-.137
RWB06	16	.830	-.126	-.254
RWB07	19	.788	.020	-.104
RWB08	22	.854	-.180	.032
RWB09	25	.825	-.305	.109
RWB10	28	.827	-.197	.026
EWB01	2	.340	.121	-.278
EWB02	5	.428	.533	-.042
EWB03	8	.301	.530	.127
EWB04	11	.421	.633	.229

(Table 5 continues)

Table 5 (continued)

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced Three-Factor Matrix

<u>Item</u>	<u>Question #</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
EWB05	14	.490	.696	.175
EWB06	17	.290	.682	-.194
EWB07	20	.313	.681	-.113
EWB08	23	.137	.382	-.329
EWB09	26	.360	.586	-.281
EWB10	29	.560	-.200	.262
SD01	3	.121	.135	.467
SD03	9	.783	-.164	.056
SD04	12	.830	-.152	.097
SD05	15	.685	-.183	.066
SD06	18	.568	.001	.460
SD07	21	.777	-.192	.206
SD08	24	.250	.316	.542
SD09	27	.663	-.277	.333

(Table 5 continues)

Table 5 (continued)

Factor Structure of the Spiritual Well-being Scale-Revised with a Forced Three-Factor Matrix

Final Statistics:

<u>Factor</u>	<u>Eigenvalue</u>	<u>Pct of Var</u>	<u>Cum Pct</u>
1	10.954	39.1	39.1
2	3.584	12.8	51.9
3	1.679	6.0	57.9

Note: N = 150.

Reliability

Results of internal consistency (see table 6) revealed coefficient alphas of .95 for religious well-being and .83 for existential well-being. For spiritual disciplines, the initial overall alpha was .77. Two spiritual discipline items, SD02 (“I do not struggle with pride or control issues”), and SD10 (“I struggle letting go of minor injustices done to me”), were found to be unrelated to the other spiritual discipline items in this sample. SD02 relates to the spiritual discipline of submission, and SD10 relates to the spiritual discipline of forgiveness. Further analysis showed with SD02 removed, spiritual disciplines alpha increased to .78. If SD10 were removed, overall alpha would improve to .79. With both SD02 and SD10 removed, alpha improved to .83.

Table 6

Internal Consistency for The Spiritual Well-being Scale - Revised

<u>Sub-scale</u>	<u>Alpha</u>	<u>Standardized Item/Alpha</u>
RWB(10 items)	.9468	.9471
EWB(10 items)	.8302	.8381
SD(10 items)	.7551	.7652
SD(8 items)	.8274	.8244
SWBS(20 items)	.9136	.9128
SWBSR(30 items)	.9215	.9237
SWBSR(28 items)	.9324	.9310

Note: $N = 150$. EWB = existential well-being, RWB = religious well-being, SD = spiritual disciplines, SWBS = Spiritual Well-being Scale, SWBS-R = Spiritual Well-being Scale-Revised

The removal of an additional spiritual discipline item, SD01, improved the overall alpha to .86 for the remaining seven spiritual disciplines items. However, this question does appear to be related to religious well-being. It also has the advantage of a wider variability, which makes it difficult to determine if the question should be removed or should stay in the Spiritual Well-being Scale - Revised. In this study it was kept as one of the eight additional spiritual discipline questions. The overall alpha coefficient for the original Spiritual Well-being Scale was .91. The

addition of the spiritual discipline items improved the internal consistency of the Spiritual Well-being Scale to .92. In addition, with the items SD02 and SD10 removed, the overall alpha of The Spiritual Well-being Scale - Revised improved to .93.

Distribution

One of the main problems with the Spiritual Well-being Scale is negative skew or "ceiling effects." In our sample, the original Spiritual Well-being Scale had a skew of $-.318$. With the addition of eight spiritual discipline items, Spiritual Well-being Scale-Revised skew was improved to $-.105$. The main source of skew in this test comes from the religious well-being factor. The religious well-being skew was $-.799$, and the existential well-being skew was $-.436$. With the addition of spiritual discipline items to the religious well-being factor, the religious well-being skew was improved to $-.395$. The spiritual discipline skew alone was positive $.154$.

Table 7

Frequencies and Descriptives for Dependent Measure

<u>Sub-scale</u>	<u>Mean</u>	<u>Median</u>	<u>Mode</u>	<u>Standard Deviation</u>	<u>Skew</u>
RWB (10 items)	46.21	48.00	60.00	12.08	-.799
EWB (10 items)	48.91	51.00	51.00	7.72	-.436
SD (10 items)	36.97	36.00	39.00	8.76	.394
SD (8 items)	29.35	29.00	24.00	8.14	.154
SWBS (20 items)	95.13	95.00	120.00	16.66	-.318
SWBSR (30 items)	132.10	129.00	107.00	23.67	-.056
SWBSR (28 items)	124.47	123.00	101.00	23.33	-.105

Note: $N = 150$. EWB = existential well-being, RWB = religious well-being, SD = spiritual disciplines, SWBS = Spiritual Well-being Scale, SWBS-R = Spiritual Well-being Scale-Revised

Variance

The Spiritual Well-being Scale mean in this sample was 95.1 (SD = 16.66). The addition of eight spiritual discipline items (SWBS-R) changes the mean to 132.1, (SD = 23.70). The Spiritual Well-being Scale - Revised can measure 2.0 standard deviations to the ceiling with a maximum score of 180. In addition, when the items SD02 and SD10 are removed, the mean is 124.5 (SD = 23.30), the maximum score attainable is 168, and the scale measures 2.0 standard

deviations from the mean to the ceiling for this sample.

Distribution skews, another measure of ceiling effect, was reduced with the addition of the spiritual discipline items. The Spiritual Well-being Scale skew was $-.318$. The Spiritual Well-being Scale - Revised skew was $-.105$.

Chapter 4

Discussion

The Spiritual Well-being Scale has been the subject of over 400 studies since its inception in 1983. Several studies have shown the scale suffers from ceiling effects (Brinkman, 1989; Bufford et al, 1991; Ledbetter et al, 1991; & Moody, 1988). Some speculation on how to overcome this has taken place, and several studies have attempted to improve the ceiling of this scale by changing instructions (Ellison & Economos, 1981; Cooper, 1986; & Davis et al, 1987), but with little effect. Some have tried altering response format, or item wording (Brinkman, 1989; & Meyers, 1986). Others have developed new items similar to existing items (Endyke, et al., 1995). The results of this study, however, are more positive.

The results of this study are promising in that; (a) eight of the ten spiritual discipline questions correlated well with each other; (b) the eight spiritual discipline questions fit well with the RWB factor; (c) internal consistency was slightly but not significantly higher, and; (d) greater variability of spiritual discipline items which reduces the skewness of the RWB factor, and the SWBS. It is interesting to note the variability of these questions affected means more than variances. In addition, the ceiling effect was reduced by the increased variability and reduced negative skewness. The Spiritual Well-being Scale was able to measure two standard deviations above the mean, whereas previous literature suggested the Spiritual Well-being Scale

could only measure 1 to 1.5 standard deviations above the mean (Brinkman, 1989; Bufford et al, 1991; Ledbetter et al, 1991; & Moody, 1988). The result is spiritual discipline questions hold promise for reducing or eliminating the negative skew problem with the test.

From this research it appears several items load onto their respective factors weakly. For example, question 2 (“I don’t know who I am, where I came from, or where I am going”) has an eigenvalue of .120 on Factor 2, and question 3 (“There is no unconfessed sin in my life”) also loads weakly onto its factor, with an eigenvalue of .121. It would be interesting to see if the scale’s variability suffers or gains as a result of deleting these items. Deleting question 3 was examined in this study, and it was found that it affected variability negatively, albeit mildly.

Most, if not all, of the studies mentioned in this study that attempted to improve the Spiritual Well-being Scale did so by looking at psychometrics, statistics or construction of the test. Attempting theoretical speculation of the nature of the construct of spiritual well-being, and then attempting to propose additional items has not been a focus in the past. Future research on the SWBS may be better served by additional item testing based on a focus on increased variability and or new factors related to spiritual well-being.

The scale might also be improved by considering other new items, which relate to spiritual disciplines or rewording existing questions. Only the major and most popular disciplines were looked at here, and some questions, such as question 18 (“I regularly practice spiritual disciplines such as fasting, meditation, and solitude”), may be too complex. There may be other disciplines that relate to religious well being, which could improve variability. Examples include. (a) involvement in missionary work, where one is removed from the spiritually toxic aspects of a materialistically oriented society; (b) celibacy, where a person may be more motivated to cultivate their relationship with God; (c) attendance at a place of worship, which is conducive to

spiritual formation; and (d) disciplines of abstinence such as silence, chastity, and secrecy, which were not included in the spiritual discipline questions of the Spiritual Well-being Scale - Revised in this study.

The Spiritual Well-being Scale is a test of attitudes and beliefs, whereas spiritual discipline items are more a behavioral measure. Measuring attitudes and beliefs may be more subject to the way a person ideally would like to be, whereas behaviors may be a more realistic measurement of how a person really is. Additional behavioral questions (if needed) may hold more promise for the Spiritual Well-being Scale in the future.

In addition to spiritual disciplines, spiritual fruits may hold some promise for future research into spiritual well-being. In Galatians 5:22. The “fruits of the spirit” are love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, and self-control. Developing the “fruits” into behaviorally oriented questions and tested to see if they correlate positively with spiritual well-being may prove “fruitful.” Paul states in Galatians that a sinful nature is “contrary to the spirit,” and he lists several sins, which he states are “obvious.” This list of sins could also be developed into questions and tested to see if in fact they correlate negatively to spiritual well-being.

Overall, it is suggested from this study that the addition of spiritual discipline items may improve the psychometric qualities of the Spiritual Well-being Scale. In addition, results suggest spiritual disciplines play a role in spiritual well-being, and may as well play a role in spiritual maturity. Further research may include adding other spiritual discipline questions and then looking at the effects of this on predictive and concurrent validity. Minimally, these results warrant future research into benefits of adding spiritual discipline questions to the Spiritual Well-being Scale.

References

- Anastasi, A. (1988). Psychological testing (6th ed.). New York: Macmillan.
- Boliou, N. A. (1989). The effect of deliberate faking good and faking bad on spiritual well-being scores in a religiously inactive sample. Unpublished manuscript, George Fox University, Newberg, Or.
- Bradburn, N. M. (1969). The structure of psychological well-being. Chicago: Aldine.
- Brinkman, D. (1989). Evaluation of the Spiritual Well-being Scale. Unpublished manuscript, Western Conservative Baptist Seminary, Portland, OR.
- Bufford, R.K. (1984, June). Empirical correlates of Spiritual Well-being and Spiritual Maturity Scales. Paper presented at the annual meeting of the Christian Association for Psychological Studies annual meeting, Dallas Texas.
- Bufford, R. K., Paloutzian, R.F., & Ellison, C. W. (1991). Norms for the Spiritual Well-being Scale. Journal of Psychology and Theology, 19 (1), 56-60.
- Campbell, A., Converse, P. E., & Rodgers, W.L. (1976). The quality of American life. New York: Russell Sage Foundation.
- Campbell, A. (1976). Subjective measures of well-being. American Psychologist, 31, 117-124.
- Campbell, A. (1981). The sense of well-being in America: Recent patterns and trends. New York: McGraw Hill.
- Cooper, R. L. (1986). An empirical examination of the construct validity of the Spiritual Maturity Index. (Doctoral dissertation, Western Conservative Baptist Seminary). Dissertation Abstracts International, 47, 4645B.

- Davis, W. W., Longfellow, D. R., Moody, A. V., & Moynihan, W. S. (1987). Spiritual Maturity Index: Construct validation. Unpublished manuscript, Western Conservative Baptist Seminary, Portland, OR.
- Ellison, C.W. (1983). Spiritual well-being: Conceptualization and measurement. Journal of Psychology and Theology, *11*, 330-340.
- Ellison, C.W., & Economos, T. (1981, April). Religious orientation and quality of life. Paper presented at the annual meeting of the Christian Association of Psychological Studies, San Diego, CA.
- Ellison, C.W., Rashid, I., Patla, P., Calica, R., & Haberman, D. (1984). Personality, religious orientation, and spiritual well-being. Unpublished manuscript.
- Endyke, P.D., Roid, G., Engelhardt, J., McCoy, L., & Roberts, C. (1995). A revision of the Spiritual Well-being Scale. Unpublished manuscript, George Fox University, Newberg, OR.
- Foster, R.J. (1988). Celebration of discipline. San Francisco: Harper Collins.
- Gallup, G., Jr. (1980). Religion in America 1979-80. Princeton, N.J: The Princeton Religion Center.
- Ganje-Fling, M., & McCarthy, P. R. (1991) A comparative analysis of spiritual direction and psychotherapy. Journal of Psychology and Theology, *1*, 103-117.
- Gorsuch, R. L. (1984). The boon and bane of investigating religion. American Psychologist, *39*, 228-236.
- Hutch, R.A. (1983). An essay on psychotherapy and religion. Journal of Religion and Health, *22*, 7-18.

- Kirschling, J.M., & Pittman, J.F. (1989). Measurement of spiritual well-being: A hospice caregiver example. The Hospice Journal, *5*, 1-11.
- Ledbetter, M. F., Smith, L. A., Fischer, J. D., Vosler-Hunter, W. L., & Chew, G. P. (1991). An evaluation of the construct validity of the Spiritual Well-being Scale: A confirmatory factor analytic approach. Journal of Psychology and Theology, *1*, 94-102.
- McCall, Storrs (1975). Quality of life. Social Indicators Research, *2* 229-248.
- Meyers, R. W. (1986). The effect of two likert labeling formats on Spiritual Well-being Scale scores. Unpublished Manuscript, Western Conservative Baptist Seminary, Portland, OR.
- Moberg, D. O. (1971) Spiritual well-being: background and issues. Washington D.C.: White House Conference on Aging.
- Moberg, D. O. (1979) Spiritual well-being: Sociological perspectives. Washington D. C. University Press of America.
- Moody, A. V. (1989). The effect of deliberate faking good and faking bad on Spiritual Well-being Scale scores in a church sample. Dissertation Abstracts International, *50*, 753-754B. (University Microfilms International, 89-04904)
- Mowrer, O. H. (1961). The crisis in psychiatry and religion. New York: Van Nostrand.
- National Interfaith Coalition on Aging. (1975). Spiritual well-being: A definition. Athens, GA: NICA.
- Paloutzian, R.D., & Ellison, C.W. (1982). Loneliness, spiritual well-being and the quality of life. In L.A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy. New York: Wiley.

- Roid, G., Endyke, P., Engelhardt, J., McCoy, L., & Roberts, C. (1995). Revising the Spiritual Well-being Scale. Unpublished manuscript at George Fox University, Newberg, OR.
- Reiland, D. (1989). Joshua's men. Atlanta GA. Injoy Ministries.
- Swenson, C.H. (1981). Toward a new psychotherapy. Academic Psychology Bulletin, 3, 209-216.
- Trueblood, E., & Trueblood, P. (1953). The recovery of family life. New York: Harper & Brothers.
- Upshaw, F.G. (1988). The effects of a communication skills training program on marital satisfaction, commitment, social desirability, and spiritual well-being. (Doctoral Dissertation, Western Conservative Baptist Seminary, Portland, OR). Dissertation Abstracts International, 48, 3698B.
- Willard, D. (1991). The spirit of the disciplines. San Francisco: Harper Collins.
- Wood, G. (1981). Fundamentals of psychological research (3rd ed.) Boston, MA: Little, Brown and Co.

Appendix A

Spiritual Well-being Scale –Revised

DIRECTIONS

Thank-you for volunteering to participate in this George Fox University study. It generally takes approximately 4 –10 minutes to complete. Some questions relate to spirituality. At any time you may decline to participate and return the questionnaire. This study is confidential and does not ask for your name. Results may be published. Answering questions honestly is critical. Again, thank you very much for your valuable time.

Spiritual Well-being Scale-Revised

For each of the following statements circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience.

SA = Strongly agree	D = Disagree
MA = Moderately Agree	MD = Moderately Disagree
A = Agree	SD = Strongly Disagree

- | | | | | | | | |
|-----|--|----|----|---|---|----|----|
| 1. | I don't find much satisfaction in private prayer with God. | SA | MA | A | D | MD | SD |
| 2. | I don't know who I am, where I came from,
or where I am going. | SA | MA | A | D | MD | SD |
| 3. | There is no unconfessed sin in my life. | SA | MA | A | D | MD | SD |
| 4. | I believe that God loves me and cares about me. | SA | MA | A | D | MD | SD |
| 5. | I feel that life is a positive experience. | SA | MA | A | D | MD | SD |
| 6. | I do not struggle with pride or control issues. | SA | MA | A | D | MD | SD |
| 7. | I believe that God is impersonal and not interested in
my daily situations. | SA | MA | A | D | MD | SD |
| 8. | I feel unsettled about my future. | SA | MA | A | D | MD | SD |
| 9. | I often have a sense of God giving me clear answers
and direction. | SA | MA | A | D | MD | SD |
| 10. | I have a personally meaningful relationship with God. | SA | MA | A | D | MD | SD |
| 11. | I feel very fulfilled and satisfied with life. | SA | MA | A | D | MD | SD |
| 12. | I invest daily time in prayer for others as well as
for myself. | SA | MA | A | D | MD | SD |
| 13. | I don't get much personal strength and support from
my God. | SA | MA | A | D | MD | SD |
| 14. | I feel a sense of well-being about the direction my life
is heading. | SA | MA | A | D | MD | SD |
| 15. | My thought life is pure and under God's
complete control. | SA | MA | A | D | MD | SD |
| 16. | I believe that God is concerned about my problems. | SA | MA | A | D | MD | SD |
| 17. | I don't enjoy much about life. | SA | MA | A | D | MD | SD |

18.	I regularly practice spiritual disciplines such as fasting, meditation, and solitude.	SA	MA	A	D	MD	SD
19.	I don't have a personally satisfying relationship with God.	SA	MA	A	D	MD	SD
20.	I feel good about my future.	SA	MA	A	D	MD	SD
21.	Both personal and group worship are alive in my life and bring a sense of renewal.	SA	MA	A	D	MD	SD
22.	My relationship with God helps me not to feel lonely.	SA	MA	A	D	MD	SD
23.	I feel that life is full of conflict and unhappiness.	SA	MA	A	D	MD	SD
24.	I do not struggle with materialism, and have found the joy of contentment.	SA	MA	A	D	MD	SD
25.	I feel most fulfilled when I am in close communion with God.	SA	MA	A	D	MD	SD
26.	Life doesn't have much meaning.	SA	MA	A	D	MD	SD
27.	I invest time daily studying scripture or spiritual material.	SA	MA	A	D	MD	SD
28.	My relation with God contributes to my sense of well-being.	SA	MA	A	D	MD	SD
29.	I believe there is some real purpose for my life.	SA	MA	A	D	MD	SD
30.	I struggle letting go of minor injustices done to me.	SA	MA	A	D	MD	SD

Appendix B

Demographics Questionnaire

DEMOGRAPHICS QUESTIONNAIRE

1. Age: _____
2. Gender: _____ Male _____ Female
3. Race: _____Caucasian _____African-American _____Asian _____Latin _____Other
4. Education: _____ Grades 1-12 (write in grade completed)
_____ College (write in years completed)
_____ Graduate (write in years completed)
5. Religious orientation: _____Christianity _____Judaism _____Muslim _____Buddhism
_____Atheism _____Humanism _____Agnosticism _____New Age _____Other
6. If Christian: (please mark the best response)
_____ I respect the teachings of Christ and attempt to follow some moral/ethical principles.
_____ I respect the teachings of Christ and attempt to follow all of his moral/ethical principles.
_____ I accept Christ as my personal savior, and attempt to follow some of his moral/ethical principles
_____ I accept Christ as my personal savior, and attempt to follow all of his moral/ethical principles.

Appendix C
Explanation of Raw Data

Explanation of Raw Data

Column 1:	Identification Number
Column 2:	Religious Well-being Question 1
Column 3:	Existential Well-being Question 1
Column 4:	Spiritual Disciplines Question 1
Column 5:	Religious Well-being Question 2
Column 6:	Existential Well-being Question 2
Column 7:	Spiritual Disciplines Question 2
Column 8:	Religious Well-being Question 3
Column 9:	Existential Well-being Question 3
Column 10:	Spiritual Disciplines Question 3
Column 11:	Religious Well-being Question 4
Column 12:	Existential Well-being Question 4
Column 13:	Spiritual Disciplines Question 4
Column 14:	Religious Well-being Question 5
Column 15:	Existential Well-being Question 5
Column 16:	Spiritual Well-being Question 5
Column 17:	Religious Well-being Question 6
Column 18:	Existential Well-being Question 6
Column 19:	Spiritual Well-being Question 6
Column 20:	Religious Well-being Question 7
Column 21:	Existential Well-being Question 7
Column 22:	Spiritual Disciplines Question 7

Column 23:	Religious Well-being Question 8
Column 24:	Existential Well-being Question 8
Column 25:	Spiritual Well-being Question 8
Column 26:	Religious Well-being Question 9
Column 27:	Existential Well-being Question 9
Column 28:	Spiritual Well-being Question 9
Column 29:	Religious Well-being Question 10
Column 30:	Existential Well-being Question 10
Column 31:	Spiritual Disciplines Question 10
Column 32:	Age
Column 33:	Gender
Column 34:	Race
Column 35:	Education
Column 36:	Religion
Column 37:	Christian Type
Column 38:	Spiritual Well-being Totals
Column 39:	Spiritual Well-being – Revised Totals
Column 40:	Spiritual Disciplines Totals
Column 41:	Existential Well-being Totals
Column 42:	Religious Well-being Totals
Column 43:	Spiritual Well-being – Revised 2 Totals (Spiritual Disciplines questions 2 and 10 deleted)
Column 44:	Spiritual Disciplines 2 (Spiritual Disciplines questions 2 and 10 deleted)

sub 001	rwb 01	ewb 01	sd 01	rwb 02	ewb 02	sd 02	Rwb 03	ewb 03	sd 03	rwb 04	ewb 04	sd 04	rwb 05	ewb 05	sd 05
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sub 001	rwb 06	ewb 06	sd 06	rwb 07	ewb 07	sd 07	Rwb 08	ewb 08	sd 08	rwb 09	ewb 09	sd 09	rwb 10	ewb 10	sd 10
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64	4	5	1	4	4	3	3	4	1	3	6	3	3	5	3

sub 001	age	gen- der	race	educ	reli- gion	typ Chris	swb tot	swbr tot	sd	ewb	rwb	swbr 2	sd2
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2	19	2	1	13	1	4	116	156	40	56	60	152	36
3	-	-	-	-	-	-	51	75	24	39	12	71	20
4	27	2	2	15	1	4	111	164	53	51	60	154	43
5	32	2	1	12	1	4	117	176	59	57	60	165	48
6	37	1	1	14	1	2	88	124	36	56	32	112	24
7	47	1	1	16	1	1	74	122	48	37	37	97	23
8	68	1	1	16	1	2	101	138	37	51	50	131	30
9	33	2	2	-	-	-	79	114	35	37	42	107	28
10	42	2	1	10	8	1	74	104	30	38	36	98	24
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15	47	1	1	21	7	-	81	107	26	44	37	101	20
16	24	1	1	14	8	-	83	107	24	51	32	98	15
17	27	1	1	17	7	-	75	104	29	54	21	94	19
18	58	2	1	17	4	-	117	161	44	57	60	156	39
19	43	2	2	13	1	4	97	142	45	46	51	133	36
20	26	2	3	16	9	-	62	82	20	42	20	74	12
21	34	2	1	12	1	4	95	127	32	45	50	121	26
22	40	1	1	13	1	4	118	158	40	58	60	151	33
23	33	1	1	21	1	-	81	111	30	59	22	101	20
24	64	2	1	12	1	4	114	158	44	58	56	150	36
25	45	2	1	15	9	-	98	132	34	55	43	124	26
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27	50	2	1	14	1	3	108	147	39	59	49	140	32
28	20	2	1	13	9	-	112	141	29	58	54	129	17
29	41	1	2	16	1	3	76	107	31	38	38	101	25
30	58	2	1	13	1	4	105	138	33	53	52	134	29
31	28	1	1	12	1	1	90	122	32	49	41	116	26
32	23	2	1	15	1	4	111	149	38	54	57	141	30
33	22	2	1	12	1	4	104	130	26	52	52	127	23
34	62	2	1	12	1	2	102	147	45	51	51	137	35
35	20	1	2	13	1	1	87	120	33	42	45	112	25
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38	72	1	1	18	1	4	112	158	46	56	56	150	38
39	70	2	2	16	1	4	113	158	45	55	58	151	38
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41	27	2	3	20	9	-	78	111	33	49	29	103	25
42	42	1	1	15	1	1	90	123	33	45	45	115	25
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55	45	2	1	18	7	-	50	76	26	40	10	68	18
56	23	1	3	14	9	-	84	117	33	52	32	110	26
57	36	1	1	12	1	-	83	123	40	40	43	118	35
58	44	2	1	16	1	4	120	172	52	60	60	161	41
59	63	2	2	18	1	2	72	107	35	34	38	101	29
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61	21	2	1	14	1	4	89	128	39	36	53	124	35
62	27	2	1	14	1	4	107	146	39	51	56	138	31
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sub 001	rwb 01	ewb 01	sd 01	rwb 02	ewb 02	sd 02	rwb 03	ewb 03	sd 03	rwb 04	ewb 04	sd 04	rwb 05	ewb 05	sd 05
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74	6	6	2	6	5	5	3	3	4	5	5	4	3	5	4
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77	4	6	1	4	2	5	4	3	2	2	2	3	4	3	2
78	1	6	1	1	6	6	3	6	1	1	6	1	1	6	1
79	6	6	2	4	4	4	4	4	5	4	4	4	4	4	2
80	4	4	4	6	6	6	6	2	6	6	5	4	6	5	5
81	6	5	3	6	5	5	6	3	4	5	6	5	5	5	3
82	4	4	3	5	6	5	4	4	3	4	4	4	4	4	3
83	6	6	2	6	6	5	6	5	6	6	5	6	6	5	6
84	6	6	5	6	6	3	6	6	5	6	6	6	6	5	5
85	6	6	4	6	4	3	6	3	3	4	3	5	5	5	4
86	6	6	4	6	4	3	6	2	3	4	3	4	4	4	2
87	4	4	6	5	4	3	5	4	4	4	4	4	4	4	2
88	1	4	1	5	2	5	5	1	5	6	4	5	2	4	4
89	2	5	5	4	2	3	6	5	2	1	3	3	5	1	5
90	1	3	5	6	6	4	1	3	4	4	4	1	4	4	4
91	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
92	6	6	6	6	6	6	6	1	6	6	5	6	6	6	5
93	4	4	2	6	6	3	6	6	4	4	3	4	6	4	1
94	5	5	3	5	2	2	5	2	2	2	3	2	5	2	3
95	3	6	3	4	4	4	4	6	2	4	4	2	4	4	2
96	4	6	6	6	6	1	6	3	4	4	3	5	5	3	3
97	6	6	6	6	6	5	6	2	6	6	5	6	6	5	5
98	6	6	1	6	4	3	6	6	4	6	3	6	6	6	3
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100	6	6	6	6	6	4	6	6	6	6	6	6	6	6	6
101	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4
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103	6	6	2	4	6	6	6	6	5	5	6	4	5	6	5
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106	2	5	5	4	6	6	1	6	3	2	6	2	5	6	1
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108	4	6	6	6	6	6	6	3	1	6	1	2	6	1	
109	4	4	3	4	4	3	4	4	3	3	3	3	4	4	3
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111	6	6	1	6	6	4	6	6	4	6	5	4	5	5	4
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113	5	6	5	6	6	5	6	2	4	5	4	3	5	4	4
114	6	6	3	4	4	3	4	3	3	3	3	3	4	3	3
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116	6	6	3	6	5	3	6	6	4	6	6	4	6	5	5
117	6	6	1	6	6	6	6	6	6	6	6	6	1	6	6
118	5	6	2	6	6	5	6	6	4	4	5	4	4	6	4
119	5	6	5	6	6	5	5	6	5	5	6	5	6	6	4
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122	6	6	6	6	6	5	6	5	5	6	6	6	6	6	5
123	6	6	2	6	6	4	6	5	5	5	5	6	6	5	4
124	6	4	6	6	6	5	6	6	4	6	6	6	4	6	4
125	6	6	4	6	6	3	6	6	6	6	6	6	6	6	4
126	3	6	3	4	4	4	4	5	2	3	4	2	2	4	1

sub 001	rwb 06	ewb 06	sd 06	rwb 07	ewb 07	sd 07	rwb 08	ewb 08	sd 08	rwb 09	ewb 09	sd 09	rwb 10	ewb 10	sd 10
63	2	6	3	1	6	1	1	5	3	1	6	1	1	6	2
66	4	6	3	4	4	3	4	4	4	4	6	3	4	5	4
67	4	6	3	4	6	3	3	6	4	3	6	3	3	4	4
68	4	5	3	5	4	3	4	4	4	3	4	3	4	4	4
69	6	4	4	5	4	6	5	4	4	6	6	4	6	6	2
70	6	6	6	6	6	6	6	6	4	6	6	3	6	6	6
71	4	4	3	4	4	3	4	3	3	4	4	4	4	4	3
72	3	6	3	2	6	1	2	6	3	1	6	1	1	6	6
73	6	6	5	6	5	4	6	3	3	5	6	1	6	6	3
74	4	2	4	3	5	4	4	5	4	5	3	5	5	5	2
75	4	4	2	4	4	3	3	4	2	4	6	2	4	4	1
76	6	6	5	6	6	4	6	6	4	6	6	5	6	6	6
77	4	2	1	4	3	3	2	6	3	3	2	1	4	3	1
78	1	6	6	1	6	1	1	6	6	1	6	1	4	3	5
79	2	6	3	6	4	4	5	4	4	5	4	1	4	4	4
80	5	4	3	6	5	4	4	3	2	4	6	3	1	4	6
81	5	6	2	5	5	5	5	4	4	5	5	3	5	5	4
82	4	4	3	4	4	4	4	3	4	4	4	4	4	4	4
83	6	6	4	6	5	6	6	5	5	6	6	6	6	6	3
84	6	6	5	6	6	6	6	1	5	6	6	6	6	6	3
85	5	4	3	4	5	5	5	3	2	4	4	4	6	5	2
86	5	5	3	4	4	4	5	4	3	6	5	4	5	5	5
87	3	4	3	4	4	2	3	3	4	3	5	1	4	4	3
88	2	2	3	2	2	6	2	1	3	5	4	6	3	6	6
89	1	1	2	1	2	1	6	6	5	2	3	3	4	5	5
90	4	2	4	3	4	6	6	1	4	6	3	4	6	6	4
91	6	6	5	6	6	6	6	6	6	6	6	6	6	6	6
92	6	6	5	6	6	3	6	5	6	6	6	3	6	6	6
93	5	6	1	6	6	6	5	3	3	5	6	2	6	6	1
94	5	2	3	2	3	3	3	2	3	3	3	3	3	3	3
95	4	6	3	4	4	2	4	5	4	3	6	4	4	4	2
96	5	5	3	6	4	3	4	6	4	4	5	2	4	5	2
97	6	6	6	6	5	6	6	2	5	6	6	5	6	6	5
98	6	4	4	6	6	6	6	3	4	6	6	6	6	6	4
99	6	6	5	6	1	6	6	6	6	6	6	6	6	6	6
100	6	6	5	6	6	6	6	6	6	6	6	6	6	6	1
101	4	4	3	4	4	4	4	3	4	3	4	4	4	4	4
102	4	4	3	4	4	5	5	3	3	4	5	3	4	5	2
103	5	6	3	2	6	3	5	6	4	4	6	3	4	6	4
104	6	6	6	6	6	6	6	2	5	6	6	4	6	6	4
105	6	6	4	6	5	4	5	6	4	4	6	4	4	6	1
106	2	6	1	5	6	1	1	6	5	1	6	1	2	6	4
107	6	6	4	6	5	3	6	3	2	6	6	2	6	6	2
108	6	6	1	2	6	3	3	6	5	1	6	1	2	6	4
109	4	4	3	4	4	4	4	3	3	4	4	3	4	4	3
110	4	6	3	4	6	4	3	4	3	3	6	2	4	4	4
111	6	6	3	5	5	6	6	4	5	6	6	4	5	6	4
112	6	6	6	6	1	6	6	6	6	6	6	6	6	6	6
113	5	6	1	6	4	3	1	5	3	5	6	1	5	6	1
114	4	6	3	4	3	3	4	3	3	4	4	3	4	4	4
115	6	6	5	6	6	6	6	2	6	6	4	6	6	6	3
116	6	6	4	6	4	4	4	6	4	6	6	4	6	6	5
117	6	6	1	6	6	4	6	3	3	5	6	3	6	6	4
118	4	6	4	3	5	3	4	5	5	4	6	3	4	6	5
119	5	6	6	1	6	6	6	4	5	4	6	4	5	6	6
120	3	4	4	4	4	3	3	4	4	4	4	3	4	5	4
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122	6	6	4	6	6	4	6	2	5	6	6	6	6	6	6
123	6	6	1	6	5	4	5	3	4	4	6	3	4	5	4
124	6	4	4	4	6	4	4	3	3	5	6	2	4	6	3
125	6	6	4	6	6	6	6	4	4	6	6	6	6	6	4
126	4	6	1	2	4	1	2	6	3	1	6	1	1	4	4

sub 001	age	gen- der	race	educ	reli- gion	typ Chris	swb tot	swbr	sd	ewb	rwb	swbr 2	sd2
65	-	2	-	-	-	-	68	89	21	42	26	84	16
66	27	2	5	12	1	3	84	119	35	44	40	111	27
67	58	1	1	16	1	2	100	136	36	58	42	126	26
68	36	1	1	12	1	3	94	130	36	46	48	122	28
69	21	1	1	12	1	4	100	141	41	43	57	136	36
70	30	2	1	14	1	4	117	170	53	57	60	159	42
71	40	2	1	16	1	2	87	120	33	41	46	114	27
72	25	1	2	13	5	-	83	109	26	59	24	101	18
73	26	2	4	16	1	4	109	148	39	50	59	156	36
74	26	1	2	17	1	4	88	126	38	44	44	119	31
75	38	1	1	15	1	3	79	103	26	40	39	101	22
76	48	2	1	12	1	4	120	167	47	60	60	142	33
77	49	1	1	14	1	2	67	89	22	32	35	83	16
78	75	1	1	14	7	-	74	103	29	59	15	92	18
79	72	2	2	12	1	1	88	121	33	44	44	113	25
80	60	1	1	16	1	4	92	133	43	44	48	123	31
81	34	2	1	16	1	4	104	142	38	51	53	133	29
82	47	1	1	14	8	3	82	119	37	41	41	110	28
83	24	2	1	17	1	4	113	164	49	55	60	156	41
84	25	2	1	17	1	4	114	163	49	54	60	157	43
85	43	2	1	13	1	4	93	128	35	42	51	123	30
86	45	1	1	14	1	4	93	128	35	42	51	120	27
87	32	1	1	16	1	1	79	111	32	40	39	105	26
88	23	2	2	12	9	-	63	107	44	30	33	96	33
89	18	2	2	12	8	-	65	99	34	33	32	91	26
90	-	-	-	-	-	4	77	117	40	36	41	109	32
91	62	1	1	18	1	4	120	178	58	60	60	166	46
92	50	2	1	13	1	4	113	165	52	53	60	153	40
93	56	2	1	14	1	4	103	130	27	50	53	126	23
94	35	1	1	20	1	4	65	92	27	27	38	87	22
95	69	2	1	14	1	1	87	113	28	49	38	109	22
96	40	1	1	14	1	4	94	127	33	46	48	124	30
97	40	2	1	18	1	4	109	164	55	49	60	154	45
98	36	2	1	12	9	4	110	151	41	50	60	144	34
99	67	1	1	18	1	4	115	170	55	55	60	162	47
100	66	2	1	16	1	4	120	172	52	60	60	167	47
101	69	2	2	12	1	4	82	121	39	41	41	113	31
102	35	2	1	15	1	4	88	118	30	43	45	113	25
103	35	2	1	16	1	3	106	145	39	60	46	135	29
104	57	1	1	14	1	4	115	165	50	55	60	157	42
105	22	2	1	15	1	3	105	140	35	51	54	136	31
106	21	1	1	14	7	-	84	113	29	59	25	103	19
107	36	2	1	11	1	4	111	147	36	51	60	143	32
108	39	2	1	15	1	1	93	124	31	60	33	114	21
109	50	2	1	16	1	3	77	108	31	38	39	102	25
110	41	1	1	16	1	2	89	120	31	53	36	112	23
111	70	1	1	16	1	4	112	151	39	55	57	143	31
112	51	2	1	14	1	4	108	168	60	53	55	156	48
113	25	1	1	14	1	3	98	128	30	49	49	122	24
114	35	2	1	17	1	4	80	111	31	39	41	104	24
115	63	2	1	12	1	4	120	160	40	60	60	154	34
116	42	2	1	12	1	4	114	154	40	56	58	146	32
117	31	2	1	13	1	4	111	151	40	57	54	141	30
118	28	1	1	19	1	4	101	140	39	57	44	130	29
119	58	1	1	16	2	-	106	157	51	58	48	146	40
120	30	2	1	16	4	1	78	112	34	42	36	105	27
121	74	1	1	12	1	4	111	155	44	51	60	146	35
122	72	2	1	12	1	4	115	167	52	55	60	156	41
123	37	2	1	14	1	3	106	143	37	52	54	135	29
124	50	2	1	11	1	2	104	145	41	53	51	137	33
125	61	2	1	16	1	4	118	165	47	58	60	158	40
126	28	1	1	13	9	-	75	97	22	49	26	89	14

sub	rwb	cwb	sd	rwb	cwb	sd	rwb	cwb	sd	rwb	cwb	sd	rwb	cwb	sd
001	01	01	01	02	02	02	03	03	03	04	04	04	05	05	05
127	4	4	1	6	6	4	5	3	4	3	4	4	5	3	3
128	4	6	2	4	5	5	4	6	1	4	6	1	4	6	1
129	6	6	1	6	6	3	6	6	6	6	6	6	6	6	3
130	4	3	2	4	3	3	4	3	3	3	4	2	2	4	4
131	1	6	6	1	6	4	2	4	1	1	6	1	1	5	1
132	4	4	3	5	5	3	4	4	4	4	4	3	4	4	4
133	4	4	3	4	4	3	4	4	4	4	4	4	4	4	4
134	5	4	3	4	5	5	4	5	5	5	5	2	5	5	2
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136	4	6	6	6	5	3	6	5	5	5	5	5	5	5	3
137	6	6	2	6	6	3	6	6	6	6	5	6	6	5	5
138	6	6	3	6	6	1	6	6	6	6	5	6	6	6	1
139	6	6	4	1	1	3	5	3	5	4	3	4	4	5	3
140	6	6	2	6	6	5	6	6	6	6	6	6	6	6	5
141	6	6	2	6	2	3	6	2	4	5	3	3	2	3	3
142	6	6	4	6	6	6	6	5	4	6	5	6	6	6	5
143	6	5	1	6	6	2	6	4	6	6	4	6	6	4	5
144	6	5	1	6	6	3	6	3	5	5	5	6	5	4	6
145	3	4	4	4	4	3	3	4	3	3	4	3	3	4	3
146	6	6	1	6	6	1	6	3	3	6	4	6	6	6	5
147	6	6	2	6	4	3	6	3	4	5	4	6	6	3	4
148	6	3	6	4	6	3	4	2	5	6	5	5	6	5	4
149	4	4	3	4	6	5	4	4	4	6	6	3	4	6	2
150	5	6	2	6	5	3	6	4	6	6	5	4	6	5	3

sub 001	rwb 06	ewb 06	sd 06	rwb 07	ewb 07	sd 07	rwb 08	ewb 08	sd 08	rwb 09	ewb 09	sd 09	rwb 10	ewb 10	sd 10
127	4	4	2	4	4	3	3	2	2	4	6	3	5	6	3
128	5	6	1	6	6	1	4	4	5	1	6	1	6	6	6
129	6	6	6	6	6	6	6	2	5	6	6	6	6	6	5
130	3	4	2	3	3	3	4	3	4	3	4	4	4	4	3
131	1	6	1	1	5	1	1	6	5	1	6	1	1	6	6
132	4	4	3	4	4	3	4	4	3	4	4	3	4	4	3
133	4	4	3	4	4	3	4	4	4	4	4	4	4	4	4
134	2	5	3	4	5	3	3	2	2	2	5	2	2	5	5
135	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4
136	6	6	3	5	5	6	6	4	3	4	5	5	5	5	4
137	6	6	4	6	5	6	6	6	5	6	6	5	6	6	3
138	6	6	4	6	6	6	6	3	3	6	6	6	6	6	1
139	4	6	4	4	4	3	4	3	4	3	6	3	3	6	3
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141	5	6	3	2	5	3	3	5	3	3	6	3	5	6	2
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143	6	4	3	6	4	4	4	2	4	4	4	3	4	4	4
144	6	6	1	6	5	2	5	5	5	5	6	2	6	6	3
145	4	6	3	3	6	3	3	6	3	4	6	3	3	4	4
146	6	6	3	6	6	5	6	3	5	6	6	6	6	6	4
147	6	4	2	4	3	4	4	4	4	3	4	5	6	6	4
148	3	6	6	6	5	2	4	2	3	6	6	4	5	6	3
149	4	6	1	6	6	5	4	5	4	2	6	1	4	6	6
150	6	6	4	6	5	6	6	5	5	5	6	5	6	6	3

sub 001	age	gen- der	race	educ	reli- gion	typ Christ	swb tot	Swbr tot	sd	ewb	rwb	swbr 2	sd2
127	23	1	1	12	1	4	85	116	31	42	43	109	24
128	28	1	1	16	1	1	99	123	24	57	42	112	13
129	49	1	1	14	1	4	116	163	47	56	60	155	39
130	23	1	1	14	8	-	69	99	30	35	34	93	24
131	51	2	2	16	5	-	67	94	27	56	11	84	17
132	53	2	1	13	1	3	82	114	32	41	41	108	26
133	52	2	1	15	1	-	80	116	36	40	40	109	29
134	45	2	1	20	1	1	82	114	32	46	36	104	22
135	33	2	1	12	1	4	88	123	35	44	44	118	30
136	45	2	1	15	1	4	103	146	43	51	52	139	36
137	50	2	1	13	1	4	117	162	45	57	60	156	39
138	46	1	1	14	1	4	116	153	37	56	60	151	35
139	53	2	1	14	1	4	81	117	36	43	38	111	30
140	50	1	1	15	1	4	120	171	51	60	60	160	40
141	30	2	2	12	1	1	87	116	29	44	43	111	24
142	22	1	1	13	1	4	118	169	51	58	60	157	39
143	75	2	1	12	1	4	95	133	38	41	54	127	32
144	40	1	1	12	1	4	107	141	34	51	56	135	28
145	39	1	1	16	7	-	81	113	32	48	33	106	25
146	19	1	1	14	1	4	112	151	39	52	60	146	34
147	45	2	1	13	1	4	93	131	38	41	52	124	31
148	35	2	1	15	9	-	96	137	41	46	50	131	35
149	26	2	1	16	1	1	97	131	34	55	42	120	23
150	46	2	1	13	1	4	111	152	41	53	58	146	35

Appendix D
Curriculum Vita

Peter D. Endyke
 231 NW 10th Street
 McMinnville, Oregon 97128
 (503) 474-1322

EDUCATIONAL HISTORY

- 1992-Present** Psy.D in Clinical Psychology. George Fox University, Newberg, Oregon.
- 1993** Master of Arts in Clinical Psychology. George Fox College, Newberg, Oregon.
- 1993-1994** Master of Science in Biological & Experimental Psychology. Memphis State University, Memphis, Tennessee.
- 1993-1994** Courses and training in Neuroscience. University of Tennessee Medical Center, Memphis, Tennessee.
- 1986** B.A., Psychology. University of Massachusetts. Lowell, MA.

EDUCATIONAL AND PROFESSIONAL ORGANIZATIONS

- 1994-Present** Associate Member, American Psychological Association.
- 1993-Present** Alumni Association, Memphis State University
- 1986-Present** Alumni Association, University Of Massachusetts.

PROFESSIONAL EXPERIENCE

- 1994-1996 &** Qualified Mental Health Professional—Ryles Center/Faulkner Place,
1997-Present Portland, Oregon.

On-Call staff. Diagnosis, treatment, and case management on acute and chronic adult Psychiatric units. 16 hours Per week average work time. Alan Wood, M.A., Supervisor.

- 1996-1997** Internship—Linn County Mental Health Center, Albany, Oregon.
 2000 hour training in adult, family, and child outpatient psychotherapy, psychodiagnostics, psychometrics.

1993-1994 Clinical Practicum—Acute Adult Outpatient Unit, Clackamas County Mental Health Center, Oregon City, Oregon.

An 800 hour practicum in a Community Mental Health Outpatient Facility. Responsibilities included adult assessment, diagnosis and treatment. Patty Solomon, Ph.D., Supervisor.

1993-1994 Clinical Practicum, Chehalem Youth & Family Services, Newberg, Oregon.

A 500 hour practicum in an adolescent residential facility. Responsibilities included individual, family, and group psychotherapy for clients with histories of physical and/or sexual abuse. Psychodiagnostics. Dean Longfellow, Psy.D., Paul Stolfus, Psy.D., Supervision.

1991-1992 Graduate Research Assistant, Neuropsychology Department, University Of Memphis.

Neuropsychological testing/imaging of subjects with closed head injuries. Charles Long, Ph.D., Supervisor.

1982-1986 Qualified Mental Health Assistant, Solomon Mental Health Center, Lowell, MA.

Assisted in treatment of acute and chronically mentally ill adult patients at this State Psychiatric Hospital.

PRESENTATIONS

Endyke, P. D. Attachment Disorder and Intrusive Therapy. Masters Presentation, George Fox University

Endyke, P. D. Cline-Fay Love & Logic Presentation. Chehalem Youth & Family Services.

Endyke, P. D. Treating Borderline Personality Disorder. Presented to Staff at Linn County Mental Health Center.

CONTINUING EDUCATION

1994 Cline-Fay Love & Logic Workshop. Foster Cline, Ph. D. George Fox University.

- 1994** The Healing Journey. Weekend Seminar. Clackamas Family Counseling Services. Daryl Quick, Ph. D.
- 1995** Solution-Focused, Brief Therapy. Clackamas County Mental Health.
- 1996** Current Psychopharmacology Seminar. Linn County Mental Health.
- 1997** Current Child Psychopharmacology Seminar. Linn County Mental Health.