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# A Spanish Translation of the Spiritual Well-Being Scale: Preliminary Validation

Kay Colleen Bruce

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#### A Spanish Translation of the

Spiritual Well-Being Scale: Preliminary Validation

bу

#### Kay Colleen Bruce

Presented to the Faculty of George Fox College in partial fulfillment of the requirements for the degree of Doctor of Psychology in Clinical Psychology

Newberg, Oregon

June 21, 1996

MURDOCK LEARNING RESOURCE CENTER GEORGE FOX UNIVERSITY NEWBERG, OREGON 97132

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## Approval

A Spanish Translation of the

Spiritual Well-Being Scale: Preliminary Validation

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A Spanish Translation of the Spiritual Well-Being Scale: Preliminary Validation

bу

Kay C. Bruce George Fox College Newberg, Oregon

#### Abstract

Recent attention has focused on the need for effective mental health services to minority populations in the United States. The Hispanic community is the second largest minority in the U.S. and continues to grow rapidly. Mental health services may be facilitated by translation and validation of assessment instruments which are psychometrically sound and easy to administer.

Measures of subjective well-being were developed in the United States in the 1970s. An interest in spiritual well-being, as related to one's general sense of health and well-being, led to development of the Spiritual Well-Being Scale (SWBS) by Paloutzian & Ellison (1982). Since that time, the SWBS has become the most extensively researched measure of spiritual well-being, and therefore a logical choice for translation and use among Hispanic people to measure spiritual well-being.

The SWBS was translated into Spanish and pilot tested by Bruce and Stagner (1994). The present study provides preliminary validation of the translated measure. A convenience sample of 111 people (62 males, 48 females) from six religious groups of Spanish-speaking people in the Pacific Northwest was administered the Spanish SWBS. One subsample ( $\underline{n}$ =22) was retested after 24 hours to provide an estimate of test-retest reliability. A second subsample of bilingual subjects ( $\underline{n}$ =36) was administered the English SWBS and Spanish SWBS to measure consistency across test forms.

The Spanish SWBS was demonstrated to be a fairly reliable instrument, with estimates of internal consistency ranging between .83 and .91 on the full scale. Test-retest estimates were adequate (.70). Correlation between the English SWBS and the Spanish SWBS in the bilingual administration was excellent at .92. Future usefulness of the Spanish SWBS may include availability as a research

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measurement, as a measure of therapy outcome, and as a tool to facilitate discussion of spiritual issues in churches and counseling settings. Further studies with larger sample sizes, more diversity of spiritual backgrounds, and incorporating strengthened methods of test orientation, may provide increased psychometric support for the Spanish SWBS and allow for greater usefulness.

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#### CHAPTER 1

#### INTRODUCTION

#### Background

Moral, legal, and ethical guidelines for clinical psychologists demand that culturally sensitive mental health services be made available to ethnic minorities (Corey, Corey, & Callanan, 1993; Ivey, 1990; Sue & Sue, 1990). Approximately 1 out of every 10 or 11 Americans is Hispanic (9%), based upon 1990 census information. Growth in the Hispanic population accounted for 35% of the entire United States population growth between 1980 and 1990. By the year 2050, it is projected that one out of every five Americans will be Hispanic (U. S. Bureau of the Census, 1993). Hispanics are the second largest minority in the United States and are projected to be the largest minority by the year 2010 (Day, 1993).

Studies have found that health services have drastically failed to meet the needs of this growing population, particularly because Mexican Americans are of low socioeconomic status (Quesada, 1976). The problem is compounded by communication barriers (Lurie & Lawrence, 1972). Christian clinicians have a higher calling beyond an ethical obligation to address needs of those who are impoverished (Matthew 25:40-45).

Mental health services to minorities may be facilitated by translation and validation of assessment measures which are practical to administer and whose psychometric properties are shown sound. While not sufficiently exhaustive, recent effort has been made toward the translation and validation of Spanish health care assessments, including measures of physical, mental, and social aspects of health. Spanish versions of acculturation measures have also been developed to assist in research and validation of new instruments (Cuellar, Harris, & Jasso, 1980; Dana, 1993; Olmedo & Padilla, 1978). Deyo, Diehl, Hazuda, and Stern (1985) have developed a concise, four question scale to measure acculturation of Mexican Americans, which is included in this study as part of the demographic data.

Interest in measures of subjective well-being among English-speaking populations has become a part of health care since the 1970s when a variety of 2

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indicators were developed (Bradburn, 1969; Campbell, 1981; Campbell, Converse, & Rogers, 1976). Out of this movement arose an interest in spiritual well-being as related to one's general sense of health and well-being. Moberg (1971, 1979a, 1979b; Moberg & Brusek, 1978) was a leading theorist attempting to discuss and define spiritual well-being, who made a call for further research, noting the "rich possibilities for contributing to the quality of human life. . . oriented toward helping to meet human needs in a wholistic frame of reference" (Moberg, 1979b, p. 301).

In answer to this expressed interest in spiritual well-being, a growing number of assessment measures have been developed since the late 1970s with the Spiritual Well-Being Scale (SWBS) (Ellison, 1983; Paloutzian & Ellison, 1982) being notable as the most extensively researched (Benner, 1991). Recent efforts have been made to establish norms for the SWBS, thereby making it substantially more useful (Bufford, Paloutzian, & Ellison, 1991; Ledbetter, Smith Vosler-Hunter, & Fischer, 1991). The SWBS has been found to be highly correlated with a number of other health measures (Ellison & Smith, 1991).

While progress has been made in defining and assessing spiritual well-being within English-speaking populations, defining and assessing spiritual well-being among Spanish-speaking people has gone largely unnoticed by the psychological community. Of Hispanic Americans, 84% are estimated to be cradle Catholics (cited in Heinking, 1990). The fact that religious orientation, Catholicism in particular, is such a vital element in the Hispanic culture (Hernandez, 1992), makes this oversight a noticeable void. The demonstrated validity and reliability of the SWBS renders it a reasonable choice for attempting to obtain and validate a Spanish translation of the instrument to help meet this need.

A pilot study of a preliminary Spanish translation of the SWBS demonstrated a surprisingly high alpha reliability of .86 (Bruce & Stagner, 1994), with means which were not statistically deviant from samples of similar denominations of English-speaking populations. One observation made when administering the pilot study was the seeming unfamiliarity Hispanic participants had with test-taking procedures in general. The development of sample questions was proposed to facilitate understanding.

Based upon the foregoing premises, the purposes of this study were: (a) to develop sample questions which would orient the participant to test-taking procedures, (b) to provide preliminary reliability and validity information for this Spanish translation, and (c) to explore potential clinical usefulness of the Spanish version. Chapter 1 describes historical background pertaining to research considerations regarding Hispanics and spiritual well-being.

Research Considerations Regarding Hispanics

#### Definition of Hispanic Population

The term "Hispanic" is not definitive of a particular ethnic origin. It may include: Boricua, Chicano, Latin American, Latino, Mexican American, Puerto Rican, Raza, Spanish American, Spanish Origin, or White Person of Spanish Surname. Hayes-Bautista (1980) provides a detailed history of Hispanic labels, concluding that the term "Hispanic" is misleading and stereotypical. Researchers have utilized a variety of criteria to determine appropriateness for inclusion in Hispanic studies, including: ability to speak Spanish, birth place of parents or self, having a Spanish surname, and self-identification. Because any one of these methods may include or exclude some who might be included or excluded from other studies, comparison of subjects among studies must be done with caution.

In a comprehensive study conducted by Human Population Laboratory in Alameda, California, to avoid the exclusion of any particular group, researchers Roberts and Lee (1980a, 1980b) included subjects who met any one or more of three possible conditions: (a) surname of the head of household, (b) birthplace of the parents of the household head or spouse, or (c) whether Spanish was spoken in the childhood home of either the household head or spouse. This method is likely to include some who would be excluded from other studies which are based on more limited criteria. Such an approach could possibly allow for greater generalizability, but may reduce accuracy with respect to any one group in particular.

For the purposes of this study, the term "Hispanic" refers to those individuals who are identified as Spanish-speaking by means of response to questions based on the acculturation scale developed by Deyo, et al. (1985).

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### Definition of Acculturation

Escobar, Burman, Karno, Forsythe and Golding (1987) define acculturation as "the psychosocial changes which occur when individuals from one culture come into contact with a host culture" (p. 715). When one makes a home in a new country or culture, the degree to which one adopts the values, language, and customs of the new culture is the degree to which one has become accultured. If one does not adopt the new culture, then the individual is said to have low levels of acculturation. Dana (1993) defines "marginality" as an admixture of traditional culture and new culture.

The degree of acculturation may be influenced by several factors, including: length of time in the host country; permanency of the residency in the host country; degree of participation in the host culture, including occupational, social, and religious; and commitment to acculturation. The descendants of many Mexican Americans have resided in the United States to five generations (Hayes-Bautista, 1980). The degree of acculturation achieved by these Mexican Americans may be in stark contrast to that achieved by recent Mexican immigrants who have come primarily to find employment.

#### Measures of Acculturation

Included in a review by Dana (1993) of acculturation measures is the Acculturation Rating Scale for Mexican Americans (ARSMA) (Cuellar, et al., 1980), a 20 item questionnaire designed to measure acculturation within a Mexican American population. The authors of ARSMA state that their intention was to develop a measure which could be useful in a variety of populations, including clinical populations such as psychotics and schizophrenics. Validation of ARSMA, therefore, was based upon a sample of hospitalized Mexican Americans, staff of the hospital, and students in a training program. The study concluded that Mexican Americans are not homogeneous, varying considerably according to level of acculturation.

Olmedo and Padilla (1978) have also developed a 20 item questionnaire to measure acculturation of Mexican Americans, based upon a study with 68 subjects. Among conclusions reached, the authors noted that language appeared to be the primary indicator of the acculturation process.

Having noted the findings of previous studies on measures of acculturation, Deyo et al. (1985) have

attempted to develop a more simplified measure, basing the questions on language usage. Four questions were constructed, translated, and administered to a group of 97 Mexican Americans who were patients presenting with back pain to a county hospital clinic. The four questions comprising the scale are:

 Some of our patients speak both English and Spanish, but many speak only one or the other.
 To improve our future contacts with you, we would like to know what language you prefer to speak.
 (English, Spanish, both equally)
 What language is most often spoken in your home? (English, Spanish, both equally)
 What was your first language as a child?
 (English, Spanish)
 Many of our patients have difficulty reading in either English or Spanish. Do you read any English? (yes, anything; some; very little; none). (Deyo et al., 1985, p. 51)

Further validation was ascertained from independent data from a San Antonio heart study of 1,685 Mexican Americans. Reliability and validity were demonstrated to be quite high for the new measure. (Please refer to the description of measures in Chapter 2 - Methods for further details.)

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Davis (1992) selected the acculturation scale by Deyo et al. (1985) for her validation work on a Spanish version of the Patient Satisfaction Questionnaire. The brevity, easy administration, language emphasis, and good reliability and validity of the measure, make the instrument a logical choice for inclusion in this study.

#### Translation Considerations

Achieving an accurate translation of an assessment measure is far more difficult than merely matching each item word-for-word across languages. Hulin and Mayer (1986) note the variety of opinions as to the plausibility of obtaining accurate cross-cultural translations ranging from a Whorfian position of impossibility which views language as governing cultural ideas (Thomson, 1975; Whorf, 1956), to a strong linguistic position which emphasizes the unity of mankind. Werner and Campbell (1970) describe language as the filter between man and the world. In addition to the literal meaning of a single word, one must consider cultural relevancy, idiom, grammar, syntax, experiential equivalency, and conceptual equivalency (Sechrest, Fay, & Zaidi, 1972).

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Hulin and Mayer (1986) pose the question, "do the materials elicit psychologically equivalent responses consistently across cultures and languages?" (p. 83). Chesney, Chavira, Hall, and Gary (1982) stress the importance of including acculturation measures when embarking upon cross-cultural research. The importance of acculturation is further emphasized by Hendricson, Russell, Prihoda, Jacobson, Rogan, and Bishop (1989) who point out that even one's beliefs about their own personal health status are influenced by their cultural orientation. Schulman and Smith (1963) in their study of Spanish-speaking villagers in New Mexico and Colorado found the predominant criteria for defining health to be: (a) a high level of physical activity, (b) a well-fleshed body, and (c) the absence of pain. Martinez, Martinez, Olmedo, and Goldman (1976) note the differences in the concepts of "male" and "father" between Chicano and Anglo high school students compounded by differences between genders based upon the patriarchal family structure in the Mexican culture.

Candell and Hulin (1987) define item equivalency as evoking "the specified response with the same probability among individuals with equal amounts of the trait" (p. 420). However, one may argue as to whether

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or not culture affects the degree to which one has and/or utilizes a trait. Eysenck (1987) cites three dimensions of personality which he believes to be universal and therefore valid for comparisons between countries: psychoticism, extraversion, and neuroticism. Poortinga (1989) believes that a universal identity of basic emotions is fairly well established, but the expression of such emotions are governed by "display rules" that differ from culture to culture (p. 743). Even identical responses to items may not generalize in cultural meaning, but rather may be representative of a whole domain of potential interpretation.

An additional consideration in the translation of assessment measures is the test-taking abilities of the target culture (Poortinga & Van De Vijver, 1987). Sechrest, et al. (1972) describe aspects of scale translation which are often overlooked or minimized: (a) an orientation as to the rationale for the instrument, (b) instructions which are specific as to the task, and (c) responses (particularly in the case of open-ended questions). Brevity of instructions does not insure clarity of translation. Providing adequate test-taking instruction is integral to the task.

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To achieve the most accurate and meaningful translation of an instrument, Hui & Triandis (1985) stress that more than one strategy should be employed. One of the most common strategies used is back-translation (Berkanovic, 1980; Eysenck, 1987; Hulin, 1987; Sechrest et al., 1972). Back-translation is the process by which a translator, working independently from the original translator, translates the translated scale back into the source language. The original instrument is compared to that which has been translated back into the original and differences are reconciled. The process may be strengthened by having a committee of translators involved to assist in the reconciliation of differences.

Three additional strategies of translation validation have been employed in this study. Any one method alone may not be considered to be sound methodology, but together they comprise a strong psychometric evaluation. First, a bilingual administration is accomplished by having subjects complete the instrument in both the source language and the target language (Hui & Triandis, 1983; Hui & Triandis, 1985; Hulin, 1987; Hulin & Mayer, 1986). Second, the relative means of monolingual subjects may be compared across cultures (Hulin, 1987). This

comparison must be made with caution because the the distribution of the trait measured may not be identical across cultures. Third, a monolingual sample may be compared with a bilingual sample. This strategy should also be used in conjunction with other strategies because bilingual individuals may differ in cognitive and semantic structure from monolingual individuals, even though they share the same language (Hulin, 1987).

In conclusion, it would seem that a comprehensive multistrategy approach is the most appropriate approach to obtain a psychometrically sound translation. Triandis and Brislin (1984) describe reward in cross-cultural research in terms of being able to identify "a universal core of meaning of a theoretical construct, as well as variations of the meaning of the construct in different cultures" (p. 1014).

#### Spanish Translations of Health Status Measures

A survey of literature has revealed a recent surge in the number of scales which have been translated into Spanish and psychometrically evaluated, measuring many aspects of human functioning.

#### Emotional Well-Being

Scales have been translated to measure a variety of affective considerations, including: the Daily Stress Inventory (Rodriguez-Charbonier & Burnette, 1994); the Dysfunctional Attitudes Scale (DAS) (Sanz & Vazquez, 1994); Hamilton's Scale for Depression (Ramos, Cordero-Villafafila, & Yanez-Saez, 1994); the Interaction Anxiousness Scale (Sanz, 1994); the Spanish Depression Adjective Check Lists (Lubin, Schoenfeld, Rinck, & Millham, 1980); and the State-Trait Anxiety Inventory (Virella, Arbona, & Novy, 1994).

#### Intellectual Well-Being

The Wechsler Adult Intelligence Scale (WAIS) has been translated into Spanish and factor analyzed (Gomez, Piedmont, & Fleming, 1992) along with the Wechsler Intelligence Scale for Children (WISC-R) (Tamayo, 1990). To assess neuropsychological functioning, the Luria-Nebraska Battery is available in Spanish (Boget, Hernandez, & Marcos, 1988).

# Physical Well-Being

The Sickness Impact Profile (SIP) (Vazquez-Barquero, Arias-Bal, Pena, & Diez-Manrique, 1991) measures a physical dimension comprised of ambulation, mobility, and body movement; a psychosocial

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dimension comprised of social interaction, communication, emotions and feelings, and intellectual function; nutrition; sleep and rest; household management; recreational and leisure pastimes; and work. The Nottingham Health Profile (NHP) (Alonso, Anto, & Moreno, 1990) measures energy, pain, emotional reactions, sleep, social isolation, and mobility.

#### Psychological Well-Being

The General Health Questionnaire (GHQ-12 and GHQ-28) has been translated into questionnaires of various lengths, but overall, is intended to measure unhappiness, anxiety, social inadequacy, and hypochondriasis. The Minnesota Multiphasic Personality Inventory (MMPI-2) has been translated into Spanish (Lucio, Reyes-Lagunes, & Scott, 1994) as well as the Whitaker Index of Schizophrenic Thinking (Godoy, Fernandez, Muela, & Roldan, 1994). The Personality Inventory for Children (PIC) (Chavez, Allende, & Tinoco, 1989) is available in Spanish for assessment of children, as well as the Child Behavior Checklist (Rubio-Stipec, Bird, Canino, & Gould, 1990).

#### Social Well-Being

There is a Spanish version of the Social Behaviour Assessment Schedule (Otero, Navascues, & Rebolledo-Moller, 1990).

Much has been translated in the psychological community to assist in the assessment of many facets of well-being, but none of these appear to measure spiritual well-being. The need for a psychometrically sound measure is apparent. Bergin (1983) in a meta-analysis of religiosity and mental health states:

Because religious cognitions, emotions, and behaviors, as documented here, are so pervasive, potential clinicians should understand the cultural content of their clients' religious world views rather than deny the importance of these views and coerce clients into alien linguistic and conceptual usages. (p. 180)

This study is designed to be a small step toward enabling clinicians to consider the spiritual influences in the lives of their Hispanic clients.

# Background Information Regarding Spiritual Well-Being

#### Definition of Spiritual Well-Being

In attempting to define "spiritual well-being", writers frequently state what is not meant by the term. Spiritual well-being is not synonomous with religiosity (Moberg, 1979a), spiritual health, or spiritual maturity (Ellison, 1983). Religiosity is concerned exclusively with man's relationship to God, as opposed to spiritual well-being which concerns itself with both man's relationship to God and man's relationship to life in general -- a more holistic approach. Spiritual well-being is viewed as an expression of spiritual health as "the color of one's complexion and pulse rate are expressions of good health" (Ellison, 1983, p. 332). Further, it is not intented to be a dichotomous variable (either persons have it or they don't), but rather as a continuous variable with individuals varying in levels of well-being (Ellison, 1983).

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The definition of spiritual well-being most commonly cited is that of the National Interfaith Coalition on Aging (1975): "Spiritual well-being is the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness" (p. 1). Moberg (1979a) defines spiritual well-being as "that type of existential well-being which incorporates some reference to the supernatural, the sacred, or the transcendental" (p. 137). Existential well-being is seen as involving a sense of purpose, a sense of meaning, a secure and stable identity, and a feeling of belonging.

For the purposes of this paper, spiritual well-being shall be defined as that level of well-being which one is experiencing in totality, taking into account one's relationship to God, self, community, and environment.

#### Historical Development of the SWBS

Prior to the 1960s, little attention was paid to the subjective quality of one's life. Gurin, Veroff, and Feld (1960) conducted one of the first measurements of subjective well-being when they undertook a national survey of happiness, worries, and experiences. Over

the course of the decade, a new movement known as the social indicators or quality of life movement arose to assess various qualities of life. In 1969, the U.S. Department of Health, Education, and Welfare (1969) defined a social indicator as:

A statistic of direct normative interest which facilitates concise, comprehensive, and balanced judgments about the condition of major aspects of a society. It is in all cases a direct measure of welfare and is subject to the interpretation that, if it changes in the "right" direction, while other things remain equal, things have gotten better or people are "better off." (p. 97)

During this period of time, David Moberg, a sociologist, began to call attention to the spiritual nature of man in presentations made to the 1965 annual meetings of the American Catholic Sociological Society and the American Scientific Affiliation (Moberg, 1979a). In 1971, national recognition came when the White House Conference on Aging devoted a major section to spiritual well-being. Out of this conference, the National Interfaith Coalition on Aging was developed to research needs of the aging, including aspects of their spiritual well-being.

During the later 1970s, a national upsurge in religious concerns was identified by a Gallup Poll, which noted that 86% of Americans considered their religious beliefs to be fairly or very important. Moberg (1979a) continued to write, making pleas for further research in the area of spiritual well-being.

During this same time, Ellison began to write on loneliness, encouraging mental health professionals to become more holistic in orientation, (Sangster & Ellison, 1978). In a presentation made to the Christian Association for Psychological Studies in 1981, Ellison and Economos (1981) reported on a study conducted to provide preliminary validation of a new scale which Paloutzian and Ellison had developed based upon Moberg's theory. As part of their concerns about loneliness and quality of life, in 1982, Ellison and Paloutzian published the Spiritual Well-Being Scale (SWBS) (Paloutzian & Ellison, 1982).

Over the past decade, a plethora of instruments have been designed, with adequate reliabilities, to measure various aspects of spirituality (Gorsuch, 1984; 1990). The Spiritual Well-Being Scale is distinguished by the massive amount of research completed utilizing the scale (Benner, 1991; Butman, 1990).

#### Description of the Spiritual Well-Being Scale

The Spiritual Well-Being Scale (SWBS) is a self-report instrument composed of 20 items, intended to provide a global assessment of spiritual well-being. Following Moberg and Brusek's (1978) concept of the two-dimensional composition of spiritual well-being--a vertical dimension refering to one's relationship to God, and a horizontal dimension involving one's perception of life and satisfaction without regard to specific religiosity--the SWBS is composed of two subscales, religious well-being (RWB) and existential well-being (EWB), respectively. Each subscale is comprised of 10 items, which appear alternately in the overall scale. (See Appendix A.)

#### Summary of Research Conducted with the SWBS

For a comprehensive review of research conducted between 1982 and 1990, please see Ellison & Smith (1991).

#### Acculturation

Jang (1987) conducted a study among ethnic Chinese church-goers in the U.S. and found acculturation, as defined by the number of years lived in the United

States, to be positively correlated with EWB. Wong (1989) also conducted a study with Chinese Americans and found a positive correlation between the number of years lived in the United States and SWB and RWB. Adjustment to physical illness

In a sample of individuals who were human immunodeficient virus (HIV) positive, diagnosed with AIDS Related Complex, or diagnosed with AIDS, hope was found to be positively correlated with SWB, with EWB exhibiting the strongest correlation (Carson, Soeken, Shanty, & Terry, 1990). Among dialysis patients, global adjustment and acceptance of disability correlated positively with SWB (Campbell, 1988). Adults diagnosed with cancer who had significantly higher levels of SWB were found to have lower levels of state-trait anxiety (Kaczorowski, 1989). Persons with high SWB scores were found to use fewer analgesics in controlling chronic pain (Mullins, 1988). In a study of adults with diabetes, SWB was found to be inversely related to psychosocial adjustment problems and uncertainty (Landis, 1992). SWB was positively correlated with social support and mastery (defined as the degree of successful adaptation) and negatively correlated with uncertainty in a sample of women with multiple sclerosis (Crigger, 1993).

# Age

With acculturation as a possible confounding variable, RWB (Wong, 1989), and EWB (Jang, 1987) were found to be positively correlated with increased age. Hinkle (1994) also found a correlation between SWB and increased age, but the sample had a limited age range. Bufford (1984) found no relationship between the SWBS and age or gender and concludes that the majority of studies find no relationship (Bufford, 1991).

# Gender

Culture may be a factor in the mixed results found with regard to the relationship between SWB and gender. Two studies found SWB and female gender to be positively correlated (Gagnon, 1993; Mahlangu, 1990) and other studies found little or no relationship between SWB and gender (Kellums, 1995; Lee, 1991; Wong, 1989).

# Interpersonal well-being

A greater willingness to face interpersonal conflict has been correlated with SWB (Bufford, 1991). Ease of dealing with people has been found to correlate with SWB and RWB (Boliou, 1989). Among survivors of childhood sexual abuse, SWB was positively correlated to forgiveness of the perpetrator (Wilson, 1994).

<u>Church</u>. Perception of a warm and caring church community has also been demonstrated to correlate with SWB, more with EWB than RWB (Ellison et al., 1984). Among a group of pastor's wives, SWB was positively correlated to role satisfaction (Hack, 1993). Loneliness was negatively correlated with SWB in Roman Catholic women (Wintermyer, 1992).

<u>Family</u>. Marital adjustment has been found to be postively correlated with SWB, particularly in women. Marital adjustment in men appears to be more highly correlated with EWB. Those married over 40 years demonstrated a higher correlation on SWB than those married less time (Roth, 1988). A relationship has been demonstrated between father's parenting style, SWB, RWB, and EWB (Dean, 1988).

# Physical well-being

EWB subscale scores are found to correlate positively with current level of health (Bufford, 1987). SWB was found to be positively correlated with self-ratings of past and present health, as well as with being closer to ideal body weight (Hawkins & Larson, 1984). SWB has been found to be negatively correlated with blood pressure (Hawkins, 1988).

## Psychological well-being

Psychological well-being as measured by the Psychological General Well-Being Scale was found to correlate positively with the SWBS (Temple, 1987). Among two Air National Guard units, EWB was positively correlated with current life satisfaction, and SWB and EWB were each negatively correlated with a preference to be alone (Boliou, 1989).

Clinical Issues. The MMPI level of psychopathology has been negatively correlated with EWB (Frantz, 1985). Depression has been found to correlate negatively with both SWB and EWB, with greater strength in EWB (Fehring, Brennan, & Keller, 1987). Mood disturbance in pregnant women has been found to negatively correlate with SWB (Mitchell, 1984). In a sample of Mormon psychotherapy clients compared with a sample of Mormon church leaders, the psychotherapy clients scored lower on EWB (Richards, Smith, & Davis, 1989). Individuals with eating disorders have been found to have significantly lower scores on SWB and EWB than normal populations (Sherman, 1987). A high correlation has been found between moral objection to suicide and RWB (Ellis & Smith, 1991). In a sample of child molesters, those who

reported a history of sexual trauma scored significantly lower on the SWB, RWB, and EWB scales (Papania, 1988).

<u>Personality</u>. Assertiveness and SWB are positively correlated as opposed to aggressiveness and SWB which are negatively correlated (Bufford, 1991; Hawkins, 1988; Sherman, 1987). State and trait hope have been found to correlate positively with SWB, RWB, and EWB (Carson, Soeken, & Grimm, 1988). Internal locus of control is related to SWB (Jang, 1987). Dependence and shyness are negatively correlated with SWB (Bufford, 1991). Perfectionism and SWB have been found to be negatively correlated (Ellison, et al., 1984). In an experimental treatment for perfectionism, pretest-posttest measures demonstrated a significant increase in EWB (Richards, Owen, & Stein, 1993).

<u>Self-concept</u>. Self-esteem and SWB have been found to be positively correlated (Ellison, 1983; Ellison, Rashid, Patla, Calica, & Haberman, 1984; Wong, 1989). Self-confidence has also been correlated with SWB (Hawkins, 1988). Self-concept and SWB were correlated in a sample of seminary students (Colwell, 1987).

## Religious well-being

Profession of being a Christian has been found positively correlated with SWB (Boliou, 1989; Moody, 1989). SWB, RWB, and EWB correlate with the number of years one professes to be a Christian (Boliou, 1989; Jang, 1987). Importance one places on religion has been found to correlate with SWB, RWB, and EWB (Bufford, 1984).

Frequency of church attendance and duration of personal devotions have been positively correlated to SWB and RWB (Boliou, 1989; Bufford, 1984; Ellison & Economos, 1981; Huggins, 1988; Moody, 1989). Correlation with church small group attendance has also been supported (Huggins, 1988). Frequency of family devotions correlated with SWB, RWB, and EWB (Bufford, 1984). Religious knowledge is correlated with SWB and RWB (Bufford, 1984; Moody, 1989). SWB has been found to correlate with feelings of being loved and valued by God (Ellison & Economos, 1981; Ellison et al., 1984) and RWB with one's concept of God (Lewis, 1988). Attribution to divine control is positively related to RWB and EWB (Durham, 1986).

# Translation of the SWBS into Spanish

The initial Spanish translation of the SWBS was completed by an experienced court interpreter. The translation was further verified by a college Spanish professor, a regional ethnic ministries director who is fluent in Spanish, and two bilingual church members. General agreement resulted in minimal corrections made to the original translation.

#### Pilot study

The Spanish SWBS was developed and pilot tested by Bruce and Stagner (1994). The Spanish SWBS was distributed to leaders within churches of three major denominations: Catholic (two samples), Conservative Baptist, and Friends. Of the 115 participants (55 male and 51 female), 83 were returned by mail, and 32 were administered and collected by one of the researchers during a Sunday morning service of a Spanish-speaking church. All of the subjects were residents of the Pacific Northwest. Participation was voluntary. Approximately 10% of the questionnaires returned were not included in the study because of obvious error in response patterns, for example, marking the same response to all questions.

# Pilot study results

The mean age of participants was 34 years with a range from 15 to 76 years of age. The average number of years as a Christian was reported as 20 years with a range of 0 to 73 years. The number of years in the United States averaged 15 years with a range of 1 to 60 years. Reliability (alpha) for the full scale SWB was .86. See Appendix B for demographic means and reliabilities.

When denominational Spanish-speaking means were compared with appropriate English-speaking norms, no significant differences were found. See Appendix B for a comparison of norms. Age and the number of years in the United States were positively correlated with SWB.

The Spanish version and an English version of the SWBS was administered to a bilingual group of 7 participants. Correlations on the SWB, RWB, and EWB ranged from .93 to .99. Because of the small sample size, reliability was not determined.

Overall, the Spanish version of the SWBS was demonstrated to be a fairly reliable instrument based upon the internal reliability of the denominations sampled, individually and collectively. One reason

postulated for the unusually high number of erroneous response patterns was unfamiliarity with test-taking procedures. This conclusion was based on the observation of the researcher administering the test. The scale was hypothesized to be strengthened if some sample questions were added to demonstrate test-taking procedures. Comment was also made that negatively worded items were troublesome to test-takers. Han (1993) encountered the same problem in translating "negatively phrased" items into Korean for a translation of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2).

#### Summary

From 1980 to 1989, the Hispanic population in the United States increased at a rate five times faster than the general population (Hendricson, Russell, Prihoda, Jacobson, Rogan, Bishop, & Castillo, 1989). Mental health services must be developed to meet the needs of this growing population. A holistic approach for mental health professionals in the understanding and treatment of clientele necessarily involves some assessment of spirituality. Clarke (1987) states, "the SWB scale is currently the best

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measure of the construct of spiritual well-being available" (p. 102). The development and validation of a Spanish version of the Spiritual Well-Being Scale is a small, but healthy step in the right direction.

Chapter 1 reviewed the historical background pertaining to research considerations regarding Hispanics and spiritual well-being. Based upon the perceived need for a psychometrically sound instrument to measure spiritual well-being among Hispanics, the purposes of this study were: (a) to develop sample questions which would orient the subject to test-taking procedures; (b) to provide preliminary reliability and validity information for the Spanish SWBS by including test-retest, and bilingual administrations; and (c) to explore potential usefulness of the Spanish SWBS.

CHAPTER 2

# METHODS

#### Introduction

Based upon previous research, a need has been demonstrated for the translation and validation of an instrument to assess spiritual well-being among Spanish-speaking people. The Spiritual Well-Being Scale (SWBS) by Paloutzian and Ellison (1982) has been shown to be the most reasonable choice of instrument for measuring spiritual well-being and is appropriate for translation and validation. A simple language-based acculturation scale for Mexican Americans by Deyo, et al. (1985) has been used as an effective means of measuring acculturation levels for purposes of scale validation studies.

The present study was designed to provide preliminary validation of a Spanish translation of the Spiritual Well-Being Scale. Chapter 2 sets forth the procedures used and is divided into four sections:

(a) a description of subjects sampled;
(b) explanation
of materials used, including a consent form, a brief
demographic questionnaire, an acculturation scale,
and the Spiritual Well-Being Scale;
(c) description
of procedures followed;
and (d) a summary of design.

#### Subjects

Participants for the study included 111 Spanish-speaking adults recruited from a family camp, a Bible college, an interdenominational conference, and churches in the Pacific Northwest area. The convenience sample consisted of 62 men and 48 women, plus one who did not indicate gender. The subjects ranged in age from 18 to 69.

Subjects were primarily of Mexican descent, as is generally true of Spanish-speaking people in the Pacific Northwest. The majority of subjects identified themselves as Baptist (see Appendix C for demographic information).

Requirements for participation in the study included the ability to speak and read Spanish, attainment of 18 or more years of age, and agreement to participate. Spanish literacy was operationally

determined by participants' self-report in response to a demographic question which asks the degree to which the participant reads Spanish.

Of the 111 questionnaires which were returned, 9 were excluded from the study based upon the following: 4 questionnaires left greater than 25% of the questions unanswered, 2 questionnaires were completed by subjects who were under 18 years of age, 2 questionnaires were submitted by subjects who indicated they could not read Spanish well, and 1 questionnaire had the same response marked for all questions.

## Materials

#### Consent Form

Each participant was required to sign a consent form to be included in the study. The consent form was comprised of a single paragraph and signature line requesting participation, assurance of confidentiality, and information regarding who to contact if any questions arise. The consent form was distributed and collected separately from other test instruments (see Appendix D for copy of consent form).

## Demographics

A brief demographic questionnaire requested information to describe sample and to examine effects of gender, age, denomination, the number of years lived in the United States, the number of years one has been a Christian, and ethnicity (see Appendix E for a copy of the demographic questionnaire).

# Acculturation Scale

A language based acculturation scale has been developed by Deyo et al. (1985) in response to a perceived need for a shorter instrument to be used as a part of larger health questionnaires. Four questions based on language usage were developed to measure acculturation and were administered to two populations sampled in an attempt to provide reliability and validity. The first study involved 97 Mexican Americans who were patients presenting with low back pain to a hospital clinic. The second study involved 1,685 Mexican Americans who were part of a heart study in San Antonio.

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These two samples resulted in significant correlational data linking this scale with ethnicity, place of birth, generation within the United States, and type of neighborhood, thereby establishing a preliminary construct validity. The initial sample of 97 produced a Guttman (1944) coefficient of reproducibility of .97 and a coefficient of scalability of .89. The heart study sample of 1,685 produced a coefficient of reproducibility of .96 and a coefficient of scalability of .81, among those who were Mexican American. A comparison of acculturation scale scores with a 5-point scale of language fluency, rated by interviewer, provided a Spearman Correlation of .79.

Because the measure was initially constructed to assess health care issues, test-takers are referred to as "patients." The study at hand is not centered around a medical community. Therefore, the word "personas" (meaning "people") has been substituted for the word "patients," where it occurs. Additionally, since no plans have been made for a follow-up study, the words "to improve our future contacts with you" were deleted from the measure administered herein. Additionally, to provide a means of responding to Spanish reading ability, the question was added, "do you read Spanish?" (see Appendix E for the adapted measure of acculturation). The proposed changes in wording are not anticipated to affect test validity.

Acculturation scores range from 0 (least acculturated) to 4 (most acculturated). See Table 1 for method of scoring. Analysis of data will include examination of the relationship between acculturation scores and scale scores.

## The Spiritual Well-Being Scale

The Spiritual Well-Being Scale (SWBS) was first published in an article by Paloutzian and Ellison (1982) and again in Ellison (1983). The SWBS is a self-report questionnaire comprised of 20 items designed to measure spiritual well-being (SWB), religious well-being (RWB), and existential well-being (EWB). RWB is a measure of one's relationship to God, therefore each item makes reference to God. Because EWB measures one's perception of life and satisfaction without regard to religiosity, the items comprising this subscale contain no direct reference to God.

SWB is a composite score of the two subscales RWB and EWB, with questions alternating between the

## Table 1

# Scoring for Language-based Acculturation Scale

| Scale item<br>(paraphrased) | Responses<br>scored 1    | Responses<br>scored O |
|-----------------------------|--------------------------|-----------------------|
| Preferred language          | English                  | Spanish or<br>both    |
| Home language               | English or<br>both       | Spanish               |
| First language              | English                  | Spanish               |
| Read English                | Any positive<br>response | None                  |

Note. From "A Simple Language-based Acculturation Scale for Mexican Americans: Validation and Application to Health Care Research" by R. A. Deyo, A. K. Diehl, H. Hazuda, and M. P. Stern, 1985, <u>American Journal of Public Health</u>, <u>75</u>, p. 52. Copyright 1984 by American Journal of Public Health. Reprinted by permission.

two subscales. Eleven of the items are stated in a positive direction, with nine stated in a reversed negative direction in an attempt to avoid response set biases (Anastasi, 1988). Each statment is rated on a 6-point modified Likert scale which ranges from Strongly Agree to Strongly Disagree.

## Reliability

Test-retest reliabilities of the SWBS full scale have been found to range from .82 to .99, and from .73 to .99 on the two subscales, all of which are significant at the  $\underline{p} < .001$  level. For a comprehensive review of reliability of the SWBS, see Brinkman, 1989. Internal consistency reliabilities range from .89 to .94 on the full scale and from .78 to .94 on the subscales (Brinkman, 1989; Bufford, Paloutzian, & Ellison, 1991). Intratest correlations have been found to be high between SWB-RWB and SWB-EWB, but are lower between RWB-EWB. These findings are logical because the subscales each comprise one-half of the SWB, but the EWB and RWB are wholly separate and theoretically different.

#### Validity

The face validity of the SWBS is quite good (Bufford et al., 1991). Ledbetter, Smith, Fischer, Vosler-Hunter, and Chew (1991) evaluated the factor structure of the SWBS and found a two-factor model to be superior to a one-factor model, but noted that there is room for improvement. Based upon a significant number of studies demonstrating the construct validity of the SWBS, Ledbetter, Smith, Fischer, Vosler-Hunter, and Chew (1991) state: "a criticism of the SWBS for the global lack of construct validity is not founded" (p. 99). Correlation with Other Scales

SWB and subscales RWB and EWB are positively correlated with each other (Bufford, 1984; Wintermyer, 1992). Additionally, the SWBS has been correlated with a number of other scales.

Emotional well-being measures. Scales measuring emotional well-being which have been correlated with the SWBS include the State-Trait Hope Scale (Carson, Soeken, & Grimm, 1988); the Beck Hopelessness Scale (Carson et al., 1990); the Reasons for Living Inventory (Ellis & Smith, 1991); the UCLA Loneliness Scale and the Purpose in Life Test, (Ellison, 1983);

the State-Trait Anxiety Inventory (Kaczorowski, 1989); Rosenberg's self-esteem scale (Ellison & Economos, 1981; Ellison et al., 1984); the Integration Inventory; and the Philadelphia Geriatric Center Morale Scale (Ruffing-Rahal, 1991).

Marital assessment. The Dyadic Adjustment Scale has been correlated with the SWBS (Mahlangu, 1990; Roth, 1988).

Personality measures. Among personality measures correlated with the SWBS are the Interpersonal Behavior Survey (Bufford, 1991); the Psychological General Well-Being Scale (Temple, 1987); and the Supernatural Locus of Control Scale (Durham, 1986).

Religious scales. Other religious scales correlated with the SWBS include the Religious Orientation Scale and Spiritual Maturity Index (Bufford, 1984); the Christian Lifestyle Scale; the Spiritual Leadership Qualities Inventory; the Religious Status Interview; the Lifestyle Inventory; the Spiritual Maturity Index; Intrinsic Religious Orientation (Ellison, 1983); and the Shepherd Scale (Bassett et al., 1991).

#### Norms

Bufford et al. (1991) have made the first substantive effort toward establishing norms for the SWBS. For a summary of their findings see Table 2. SWBS scores which differ by 5 or more points and RWB and EWB scores which differ by 3 or more points from established norms are considered to be significant (Bufford, Bentley, Newenhouse, & Papania, 1986). Usefulness

The SWBS has been found to be negatively skewed (scores concentrated at the high end) with a significant ceiling effect (Bufford et al., 1991; Ledbetter, Smith, Vosler-Hunter, & Fischer, 1991). The ceiling effect limits the scale's usefulness to low scores. The SWBS is unable to accurately discriminate among individuals who are spiritually healthy. The SWBS does, however, serve as an excellent indicator of those who are experiencing spiritual distress.

The SWBS, EWB in particular, has been found to be correlated with measures of social desirability (Ellis & Smith, 1991). With a sample of 172 church members Moody (1989) found that the SWBS was susceptible to

Table 2

Descriptive Statistics for Religious Groups on SWBS

| Sample                       | N        | M      | <u>SD</u> |
|------------------------------|----------|--------|-----------|
| Spiritual We                 | Ll-Being |        |           |
| Davis et al. (1987)          |          |        |           |
| Alliance                     | 330      | 103.00 | 12.30     |
| Durham (1986/1988)           |          |        |           |
| Assembly of God              | 41       | 109.88 | 11.58     |
| Conservative Baptist         | 24       | 108.58 | 8.98      |
| United Methodist             | 32       | 99.09  | 13.48     |
| Born again                   | 143      | 108.13 | 11.08     |
| Ethical Christian            | 33       | 93.42  | 14.63     |
| Huggins (1988)               |          |        |           |
| Conservative Baptist         | 285      | 105.93 | 12.59     |
| Lewis (1986/1988)            |          |        |           |
| Unitarians                   | 45       | 82.81  | 15.02     |
| Mueller (1987/1988)          |          |        |           |
| Evangelical Seminary student | s 55     | 106.00 | 10.29     |
|                              |          |        |           |

(table continues)

Table 2--Continued

| Sample                        | N      | M           | SD      |
|-------------------------------|--------|-------------|---------|
| Religious Well                | -Being |             |         |
| Davis et al. (1987)           |        |             |         |
| Alliance                      | 330    | 53.58       | 6.23    |
| Durham (1987/1988)            |        |             |         |
| Assembly of God               | 41     | 56.73       | 5.42    |
| Conservative Baptist          | 24     | 56.21       | 4.64    |
| United Methodist              | 32     | 49.64       | 7.43    |
| Born again                    | 143    | 55.64       | 5.87    |
| Ethical Christian             | 33     | 46.76       | 8.30    |
| Huggins (1988)                |        |             |         |
| Conservative Baptist          | 285    | 54.77       | 6.14    |
| Lewis (1986/1988)             |        |             |         |
| Unitarians                    | 45     | 34.10       | 13.03   |
| Mueller (1987/1988)           |        |             |         |
| Evangelical Seminary students | 55     | 54.75       | 5.92    |
|                               |        | (table cont | tinues) |

# Table 2--Continued

| Sample                        | <u>N</u> | M     | SD   |
|-------------------------------|----------|-------|------|
| Existential We                | ll-Being |       |      |
| Davis et al. (1987)           |          |       |      |
| Alliance                      | 330      | 49.42 | 7.38 |
| Durham (1987/1988)            |          |       |      |
| Assembly of God               | 41       | 53.15 | 6.78 |
| Conservative Baptist          | 24       | 52.37 | 6.03 |
| United Methodist              | 32       | 49.47 | 7.29 |
| Born again                    | 143      | 52.58 | 6.31 |
| Ethical Christian             | 33       | 46.67 | 7.78 |
| Huggins (1988)                |          |       |      |
| Conservative Baptist          | 285      | 51.19 | 7.33 |
| Lewis (1986/1988)             |          |       |      |
| Unitarians                    | 45       | 48.71 | 7.57 |
| Mueller (1987/1988)           |          |       |      |
| Evangelical Seminary students | 55       | 51.25 | 5.88 |

Note. From "Norms for the Spiritual Well-Being Scale" by R. K. Bufford, R. F. Paloutzian, and C. W. Ellison, 1991, <u>Journal of Psychology and Theology</u>, <u>19</u>, 56-70. Copyright 1991 by Rosemead School of Psychology.

faking bad, but there was no distinction between the fake good group and the honest group. Bufford (1991) argues that "psychologically healthy persons generally present themselves with a degree of positive distortion, and that this is a valid indicator of healthy functioning" (p. 10). Struble (1991), however, found no correlation between the SWBS and the Marlowe-Crowne Social Desirability Scale. The degree to which the SWBS may be susceptible to social desirability distortion is unclear, but should be taken into consideration when evaluating potential usefulness.

A few studies have been conducted using the SWBS as an outcome measure for research of therapeutic interventions (Bufford, Renfroe, & Howard, 1995; Richards, Smith, & Davis, 1989; Toh & Tan, 1995; Toh, Tan, Osburn, & Faber, 1994). Hall, Tisdale, and Brokaw (1994) call attention to the importance of using measures such as the SWBS to research issues of clinical significance. The high test-retest reliability estimates of the SWBS may suggest its potential usefulness in clinical settings.

The Spanish Spiritual Well-Being Scale

The English SWBS was translated into Spanish and pilot tested by Bruce and Stagner (1994) as a first step toward the development of the Spanish SWBS, as described in chapter 1. The Spanish SWBS was demonstrated to be fairly reliable with an estimate of .86 for the full scale. The primary objective of the present study is to strengthen preliminary reliability and validation analysis of the Spanish SWBS by including test-retest and bilingual test administrations in the study design.

#### Procedures

The first step taken in this study was to develop three sample items designed to orient the participant to test-taking procedures. In an attempt to represent the item composition of the scale, the first sample item is a negative statement, "I don't know how many grains of sand are on the beach," which is true, the second sample item is a positive statement, "I know my

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name," which is true, and the third sample item is a negative statement, "I don't know my age," which is false. The sample items were translated by a college Spanish professor and then verified by two bilingual people involved in ethnic ministries, according to the methods of developing an accurate translation as discussed in chapter 1.

The Spanish version of the SWBS was translated back into English by a Hispanic missionary. See Appendix F for a copy of the back translation. Few significant differences emerged between the original translation and the back translation. Minor differences were reconciled, on scale items 9 and 16, among those involved in the translation process.

The first group of data was collected in April, May, and June of 1994. Prospective subjects were invited to participate as they arrived and registered at a religious camp which was held for Spanish-speaking families at Tadmor conference grounds in Oregon. Participants were told, by the researcher through a translator, that the purpose of the study was to help develop a Spanish translation of a test designed to measure spiritual well-being. Participants were assured of the confidentiality of their responses by

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indicating that there was no need to put their name on the test itself. As an incentive to participate, a drawing was advertised whereby those having completed the instrument could have their name entered for a chance to win several books on display. On the second day of the conference, approximately 24 hours later, participants were invited to complete a second Spanish SWBS. To insure confidentiality, test-retest forms were matched on the basis of demographic information.

Participants were asked if they were 18 years of age or older, whether or not they could speak and read Spanish, and if they could speak and read Spanish, whether or not they could also speak and read English. Those who volunteered to participate and met the criteria for inclusion were given either a Spanish-only version or a bilingual version of the instruments, depending upon their ability to speak and read English. The Spanish-only version consisted of a consent form which was separate from all other documents, a demographic questionnaire containing demographic questions as well as the acculturation scale questions, and the Spanish SWBS.

The bilingual version consisted of a consent form which was separate from all other documents; a

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demographic questionnaire containing demographic questions as well as the acculturation scale questions, and both English and Spanish versions of the SWBS separated by a page instructing the participant not to refer back to the first page when working on the second page (for examples of the instruments, see Appendix G). For the bilingual administration, the order of Spanish and English SWBS versions were alternated with each participant.

Data collection was continued in March and April, 1996, following the same procedures, excluding the offering of books as incentive to participate and the retest administration. The researcher administered Spanish-only and bilingual versions of the Spanish SWBS to those in attendance at a Catholic church in Longview, Washington, at an interdenominational Bible conference in Portland, Oregon, and in a Bible class at Western Evangelical Seminary in Portland, Oregon. Church leaders at a Catholic church in Vancouver, Washington, and a Baptist church in Salem, Oregon, voluntarily administered the same instruments to their congregations and returned the data to the researcher by mail.

# Statistical Design

The design included statistical analysis of the Spanish SWBS to establish preliminary measures of validity and reliability by examining (a) internal consistency through item analysis, taking into account the level of acculturation; (b) correlation between two administrations of the Spanish SWB in the test-retest subsample; and (c) correlation between responses to the Spanish SWB and the English SWB in the bilingual subsample. Statistical analyses were performed using SPSS which displayed several types of statistics, including Cronbach's alpha; descriptive and summary statistics; and correlation matrices.

# Validity

Test validity is concerned with whether the test measures what it purports to and how well it measures the construct. One method of establishing construct validity is to compare a new test (the Spanish SWB) with a previously established test (the English SWB)

which measures the same general construct (Anastasi, 1988). By means of a Pearson product-moment correlation which was designed to measure the degree of linear relation between two variables, each bilingual person's score was compared between the English SWB and the Spanish SWB.

# Reliability

Reliability measures the consistency across items, across time, across scorers, or across test forms. Scales may be tested on different occasions or may be tested with different sets of equivalent items. Interitem analysis and test-retest correlation are the methods employed in this study to make preliminary estimates of reliability. A correlation coefficient  $(\underline{r})$  is that which expresses the degree of linear relationship between scores, and  $\underline{r}$  was used as the measure of test-retest consistency.

Interitem analysis is a method of estimating internal reliability as assessed by the coefficient alpha (Cronbach, 1951). Items similar in content should intercorrelate. Consistency is determined by contrasting individual item covariances across all items with the variance of total scores. Low

item covariance may be caused by two or more sources of error, such as content sampling and heterogeneity of the domain sampled (Anastasi, 1988). Reliability is then strongest when the collection of test items is homogenous in content.

#### Summary

This chapter focused on the methods used to obtain a preliminary validation of the Spanish SWBS. The total sample for the study was comprised of 111 Spanish-speaking adults, including 62 males and 48 females, plus one who did not indicate gender. The ages of participants ranged from 18 to 69. A review of the instruments used in the study included the consent form, the demographics questionnaire containing the acculturation scale items, the Spiritual Well-Being Scale, and the Spanish Spiritual Well-Being Scale. Sample questions were added to the Spanish SWBS and a back-translation obtained. Finally, administration procedures and the statistical design were reviewed.

# CHAPTER 3

#### RESULTS

This chapter presents results obtained from the study herein-described, in an attempt to provide preliminary validation for the Spanish SWBS. The chapter is divided into four sections which display descriptive statistics for the demographic variables for the total sample ( $\underline{N}$ =111), the test-retest subsample ( $\underline{n}$ =22), and the bilingual subsample ( $\underline{n}$ =36). The fourth section presents estimates of reliability and validity.

Of the total sample ( $\underline{N}$ =111), 9 questionnaires were excluded from the study based upon the following: 4 questionnaires left greater than 25% of the questions unanswered, 2 questionnaires were completed by subjects who were under 18 years of age, 2 questionnaires were submitted by subjects who indicated they could not read Spanish well, and 1 questionnaire had the same response marked for all questions. Of those retained, 96.2% indicated they read Spanish completely. Table 3

displays descriptive statistics for questions regarding language usage. For all samples, missing responses to scale questions were replaced by mean responses of the total sample (Gorsuch, 1988; G. H. Roid, personal communication, April 29, 1996). Raw data is displayed in Appendix H.

### Demographics for Total Sample

Descriptive statistics for the demographic variables from the total sample (<u>N</u>=111) are presented in Table 4. The sample was comprised of 62 males (56%), 48 females (44%), and 1 missing. The majority of the sample indicated they were of Mexican descent (72%) (see Figure 1). Ages ranged from 18 to 69 years with an average age of 34 years (see Figure 2). The amount of time lived in the United States ranged from 1 month to 67 years, with an average of 13 years. Levels of acculturation were low, ranging from 0 to 4, with an average of 1.3 for the sample, excluding 8 cases wherein a subject failed to complete the pertinent questions and the 7 pilot test subjects who were not administered the acculturation scale (see Figure 3). Table 3

# Descriptive Statistics of Language Use Variables

| Variable           | Frequency | Percent |
|--------------------|-----------|---------|
| Preferred language |           |         |
| English            | 3         | 3.0     |
| Spanish            | 55        | 54.5    |
| Both equally       | 43        | 42.6    |
| Missing            | 10        |         |
| Home language      |           |         |
| English            | 11        | 10.6    |
| Spanish            | 67        | 64.4    |
| Both equally       | 26        | 25.0    |
| Missing            | 7         |         |
| First language     |           |         |
| English            | 7         | 6.7     |
| Spanish            | 94        | 90.4    |
| Both               | 2         | 1.9     |
| Other              | 1         | 1.0     |
| Missing            | 7         |         |

(table continues)

Table 3--Continued

| Variable      | Frequency | Percent |
|---------------|-----------|---------|
| Read English  |           |         |
| Yes, anything | 35        | 34.7    |
| Some          | 29        | 28.7    |
| Very little   | 25        | 24.8    |
| None          | 12        | 11.9    |
| Missing       | 10        |         |
| Read Spanish  |           |         |
| Yes, anything | 100       | 96.2    |
| Some          | 4         | 3.8     |
| Very little   | 0         | 0       |
| None          | 0         | 0       |
| Missing       | 7         |         |
|               |           |         |

Note. <u>N</u>=111.

## Table 4

# Descriptive Statistics of Demographic Variables

| Variable                 | Frequency | Percent |
|--------------------------|-----------|---------|
| Gender                   |           |         |
| Female                   | 48        | 43.6    |
| Male                     | 62        | 56.4    |
| Missing                  | 1         |         |
| Denomination             |           |         |
| Baptist                  | 40        | 53.3    |
| Catholic                 | 18        | 24.0    |
| Charismatic <sup>a</sup> | 12        | 16.0    |
| Other <sup>b</sup>       | 5         | 6.6     |
| Missing                  | 36        | 100 Gan |
| Years in U.S.            |           |         |
| <u>&lt;</u> 10           | 64        | 59.3    |
| 11–20                    | 25        | 23.3    |
| 21+                      | 19        | 17.2    |
| Missing                  | 3         |         |
|                          |           |         |

## for the Total Sample

(table continues)

Table 4--Continued

| Variable          | Frequency | Percent |
|-------------------|-----------|---------|
| Years a Christian |           |         |
| <u>&lt;</u> 10    | 54        | 52.3    |
| 11-20             | 12        | 11.6    |
| 21+               | 38        | 37.0    |
| Missing           | 7         |         |
|                   |           |         |

Note. n=111.

<sup>a</sup>Charismatic=Assembly of God, Foursquare, and Pentecostal. <sup>b</sup>Other=Friends, Mennonite, and Quaker.

The length of time attributed to being a Christian ranged from 2 months to 69 years, with an average of 17 years for the total sample. The majority of those reporting a denomination were Baptist (53%), however, 32% of the total sample did not respond to that question.

One of the better measures of acculturation is probably the ability to read English, which was positively correlated with Spanish SWB, RWB, and EWB.

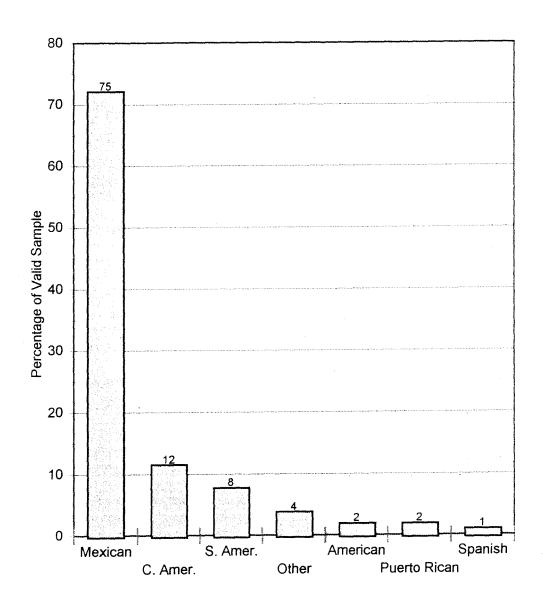


Figure 1. Heritage of total sample. ( $\underline{n} = 104$ ).

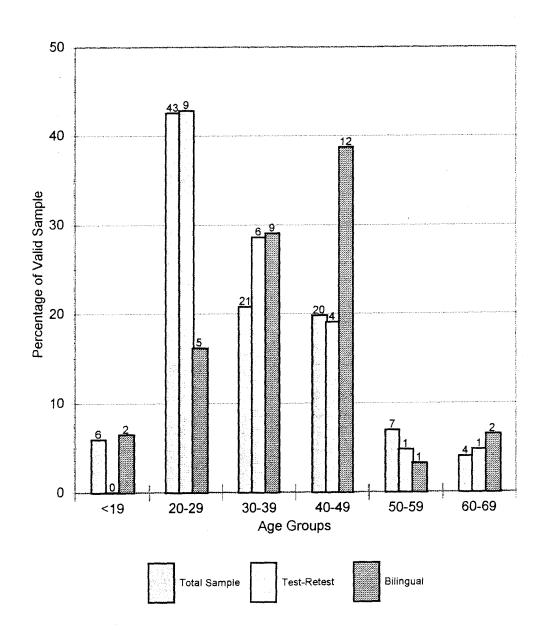
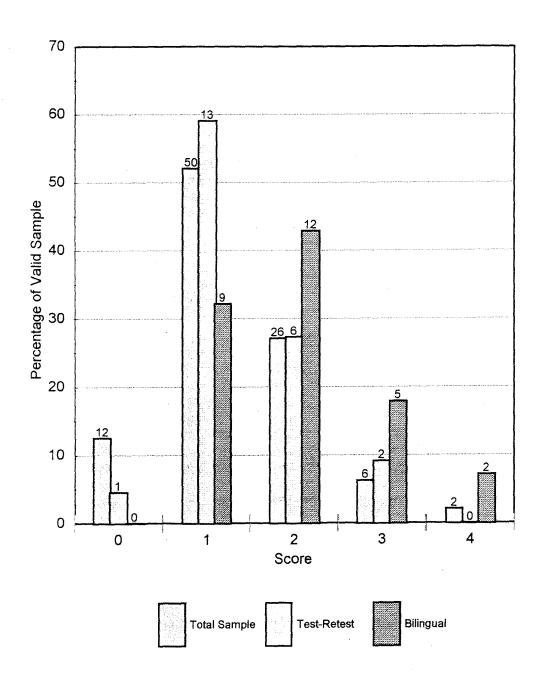


Figure 2. Comparison of age frequencies by sample. (Total sample  $\underline{n} = 101$ . Test-retest subsample  $\underline{n} = 21$ . Bilingual subsample  $\underline{n} = 31$ ).



<u>Figure 3.</u> Levels of acculturation by sample. (Total sample  $\underline{n}$  = 96. Testretest subsample  $\underline{n}$  = 22. Bilingual subsample  $\underline{n}$  = 28).

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Number of years in the United States was positively correlated with Spanish SWB and RWB. Since ability to read English and number of years lived in the United States both relate to one's level of acculturation, a possible interpretation of these results might be that some aspects of acculturation are related to increased spiritual well-being. A more likely interpretation of these results is that increased exposure to the English language and test-taking procedures allows test-takers to score higher because of greater understanding of testing processes. Correlations between demographic variables and scale scores are presented in Appendix I.

#### Test-Retest Subsample Demographics

Descriptive statistics for the demographic variables from the test-retest subsample (<u>n</u>=22) are presented in Table 5. The sample was comprised of 14 males (67%) and 7 females (33%), with 1 subject not reporting. The majority of the sample indicated that they were of Mexican descent (59%) (see Figure 4). Ages ranged from 22 to 63 years with an average age of 35 (see Figure 2). The amount of time lived in the United States ranged from 2 months to 57 years, with

## Table 5

## Descriptive Statistics of Demographic Variables

| Variable        | Frequency | Percent   |
|-----------------|-----------|---|
| Gender          |           | 188 - M. M. Shiko Makamana ang <sub>An</sub> Monaki mananan |
| Female          | 7         | 33.3  |
| Male            | 14        | 66.7  |
| Missing         | 1         |   |
| Denomination    |           |   |
| Assembly of God | 1         | 6.7   |
| Baptist         | 14        | 93.3  |
| Missing         | 7         |   |
| Years in U.S.   |           |   |
| <u>&lt;</u> 10  | 14        | 63.4  |
| 11-20           | 6         | 27.2  |
| 21+             | 2         | 9   |
|                 |           |   |

for the Test-Retest Subsample

(table continues)

Table 5--Continued

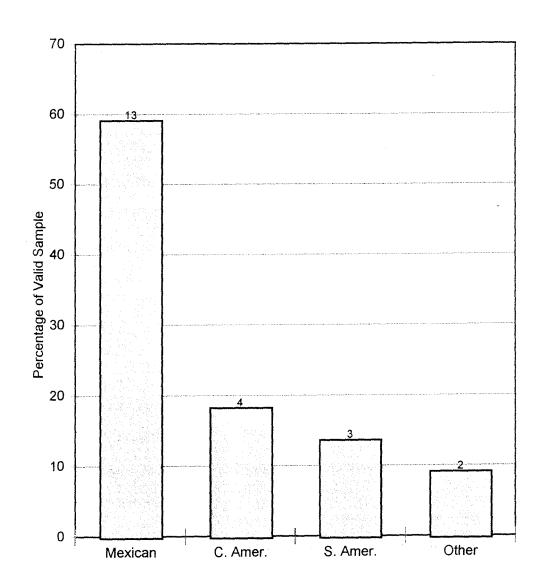
| Variable          | Frequency | Percent |
|-------------------|-----------|---------|
| Years a Christian |           |         |
| <u>&lt;</u> 10    | 11        | 52.7    |
| 11-20             | 3         | 14.3    |
| 21+               | 7         | 33.4    |
| Missing           | 1         |         |
|                   |           |         |

Note. n=22.

an average of 17 years for the sample. Levels of acculturation were low, ranging from 0 to 3, with an average of 1.4 for the sample (see Figure 3).

The length of time attributed to being a Christian ranged from 2 months to 57 years, with an average of 17 years. The majority of those reporting a denomination were Baptist (93%), however, 32% of the sample did not respond to that question. Demographic variables, including acculturation, were found to have no significant correlation to scale scores. Correlations between demographic variables and scale scores are presented in Appendix J.

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<u>Figure 4.</u> Heritage of test-retest subsample. ( $\underline{n} = 22$ ).

Bilingual Subsample Demographics

Descriptive statistics for the demographic variables from the bilingual subsample (<u>n</u>=36) are presented in Table 6. The sample was comprised of 20 males (56%) and 16 females (44%). The majority of the sample were of Mexican descent (45%) (see Figure 5). Ages ranged from 19 to 69 years with an average age of 38 (see Figure 2). The amount of time lived in the United States ranged from 1 to 67 years, with an average of 24 years for the sample. Levels of acculturation ranged from 1 to 4, with an average of 2.0 for the sample, not including the 7 pilot test subjects who were not administered the acculturation scale (see Figure 3).

The length of time attributed to being a Christian ranged from 1.5 to 69 years, with an average of 23 years. The majority of those reporting a denomination were Baptist (44%), however, 31% of the sample did not respond to that question.

Acculturation was not significantly related to scale scores. Age was positively correlated to English

## Table 6

# Descriptive Statistics of Demographic Variables

| Variable                 | Frequency | Percent  |
|--------------------------|-----------|--|
| Gender                   |           | dar filfen offin office and an address offin office and a defined ad |
| Female                   | 16        | 44.4   |
| Male                     | 20        | 55.6   |
| Denomination             |           |  |
| Baptist                  | 11        | 44.0   |
| Catholic                 | 6         | 24.0   |
| Charismatic <sup>a</sup> | 5         | 20.0   |
| Other <sup>b</sup>       | 3         | 12.0   |
| Missing                  | 11        |  |
| Years in U.S.            |           |  |
| <u>&lt;</u> 10           | 7         | 19.6   |
| 11-20                    | 12        | 33.4   |
| 21+                      | 17        | 47.6   |
|                          |           |  |

# for the Bilingual Subsample

(table continues)

Table 6--Continued

| Variable          | Frequency | Percent |
|-------------------|-----------|---------|
| Years a Christian |           |         |
| <u>&lt;</u> 10    | 10        | 28.6    |
| 11-20             | 8         | 22.8    |
| 21+               | 17        | 48.5    |
| Missing           | 1         |         |

Note. n=36.

<sup>a</sup>Charismatic=Assembly of God, Foursquare, and Pentecostal. <sup>b</sup>Other=Friends, Mennonite, and Quaker.

SWB and EWB, but was not significantly related to the Spanish SWBS. Number of years of being a Christian was positively correlated with Spanish SWB, Spanish EWB, and English RWB scale scores. Based on a t-test for independent samples (see Table 7 for statistics), order of presentation (Spanish SWBS administered first versus English SWBS administered first) had no significant effect on mean scale scores, but was related to the variances of the scores in the two orders of presentation. Subjects who received the Spanish SWBS

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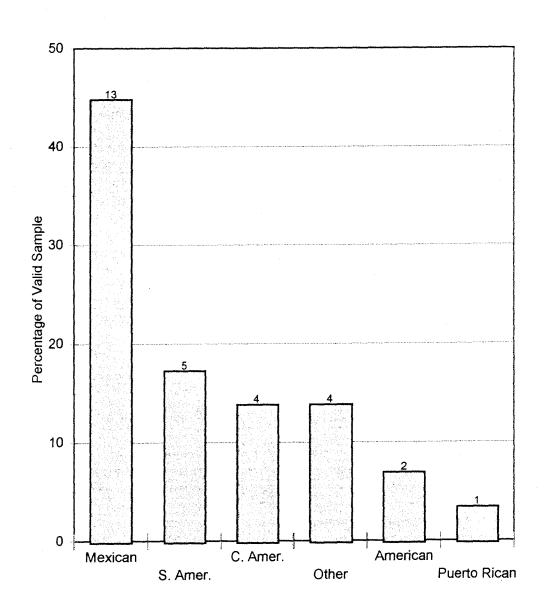


Figure 5. Heritage of bilingual subsample. ( $\underline{n} = 29$ ).

Table 7

# Levene's Test for Equality of Variances on Bilingual

# Subsample Scores By Order of Presentation

| Scales        | M      | SD    | F    | <u>p</u> |
|---------------|--------|-------|------|----------|
| Spanish SWBS  |        |       | 2.66 | .112     |
| Spanish First | 111.22 | 7.52  |      |          |
| English First | 110.50 | 13.80 |      |          |
| Spanish RWBS  |        |       | •59  | .446     |
| Spanish First | 57.56  | 3.15  |      |          |
| English First | 57.22  | 4.67  |      |          |
| Spanish EWBS  |        |       | 3.60 | .066     |
| Spanish First | 53.67  | 5.05  |      |          |
| English First | 53.28  | 9.71  |      |          |
| English SWBS  |        |       | 4.23 | •047     |
| Spanish First | 113.22 | 7.73  |      |          |
| English First | 109.33 | 15.46 |      |          |
|               |        |       |      |          |

(table continues)

Table 7--Continued

| Scales        | <u>M</u> | <u>SD</u> | <u>F</u> | <u>p</u> |
|---------------|----------|-----------|----------|----------|
| English RWBS  |          |           | 1.83     | .186     |
| Spanish First | 57.83    | 3.81      |          |          |
| English First | 56.44    | 5.89      |          |          |
| English EWBS  |          |           | 5.56     | .024     |
| Spanish First | 55.39    | 4.35      |          |          |
| English First | 52.89    | 9.98      |          |          |
|               |          |           |          |          |

Note. n=36, 18 for each order of presentation.

before the English SWBS demonstrated significantly less variability on the English SWB and EWB, than those who received the English SWBS first. Spanish SWBS scores were not significantly affected. Correlations between demographic variables and scale scores are presented in Appendix K.

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#### Reliability and Validity

Estimates of internal consistency reliability (alpha) ranged from .83 to .91 on the Spanish SWBS, .68 to .87 on the subscale RWBS, and .74 to .84 on the subscale EWBS. Internal reliability estimates were higher on the second administration of the Spanish SWBS in the test-retest subsample. See Table 8 for reliability statistics. Estimates of internal consistency for the English SWBS, based upon the bilingual subsample, are also presented in Table 8, and are slightly higher than Spanish SWBS reliability estimates.

The test-retest stability of the Spanish SWBS was analyzed by computing a Pearson correlation coefficient, estimated as follows: (a) SWBS  $\underline{r}$ =.70,  $\underline{p}$ <.001; (b) RWBS  $\underline{r}$ =.65,  $\underline{p}$ =.001; and (c) EWBS  $\underline{r}$ =.62,  $\underline{p}$ =.002. All significance levels in this study were two-tailed. Retest interval was 24 hours. See Table 9.

Estimates of validity were computed by comparing the scores of bilingual subjects on the English SWBS to their respective scores on the Spanish SWBS by

#### Table 8

# Internal Consistencies<sup>a</sup> of the SWBS

|         | Total Sample <sup>b</sup> | Test - | Retest <sup>C</sup> | Bilingual <sup>d</sup> |
|---------|---------------------------|--------|---------------------|------------------------|
| Spanish |                           |        |                     |                        |
| SWB     | .83                       | .87    | •91                 | .87                    |
| RWB     | .68                       | .83    | .87                 | .69                    |
| EWB     | • 74                      | .70    | .83                 | .84                    |
| English |                           |        |                     |                        |
| SWB     |                           |        |                     | •92                    |
| RWB     |                           |        |                     | .80                    |
| EWB     |                           |        |                     | .88                    |
|         |                           |        |                     |                        |

Note. <sup>a</sup>Cronbach's (1951) alpha. <sup>b</sup> $\underline{n}=111$ . <sup>c</sup> $\underline{n}=22$ . <sup>d</sup> $\underline{n}=36$ .

means of a Pearson product-moment correlation. The Spanish SWBS was found to be highly correlated with the English SWBS, with estimates as follows: (a) SWBS  $\underline{r}=.92$ ,  $\underline{p}<.001$ ; (b) RWBS  $\underline{r}=.81$ ,  $\underline{p}<.001$ ; and (c) EWBS  $\underline{r}=.93$ ,  $\underline{p}<.001$ . See Table 10.

When rounded, mean scores for the Baptist sample n=40 on the Spanish SWBS were identical to

Table 9

| <u>Test-Retest</u> <sup>a</sup> | Pearson | Correlations | of | the | Spanish | SWBS     |
|---------------------------------|---------|--------------|----|-----|---------|----------|
|                                 |         |              |    |     |         |          |
| Scales                          |         | r            |    |     |         | <u>p</u> |
|                                 |         |              |    |     |         |          |
| SWB                             |         | .70          |    |     |         | <.001    |
| RWB                             |         | .65          |    |     |         | .001     |
| EWB                             |         | .62          |    |     |         | .002     |
|                                 |         |              |    |     |         |          |

Note. n=22.

<sup>a</sup>Retest interval was 24 hours.

the English norms reported by Huggins (1988) for Baptists. See Table 11. Appendix L displays statistics for mean scores by denomination.

#### Summary

Results from the total sample, the test-retest subsample, and the bilingual subsample were reported in this chapter. Demographics were summarized. No correlation was found between the acculturation measure and scale scores, indicating an absence of

Table 10

## Pearson Correlation Between Spanish SWBS

and English SWBS for Bilingual Subsample

| Scales | r   | <u>p</u> |
|--------|-----|----------|
|        |     |          |
| SWB    | .92 | <.001    |
| RWB    | .81 | <.001    |
| EWB    | •93 | <.001    |
|        |     |          |

Note. n=36.

Table 11

Comparison of Mean Scores for Baptists

| Scale | Spanish SWBS | English SWBS <sup>a</sup> |
|-------|--------------|---------------------------|
| SWB   | 106.38       | 105.93                    |
| RWB   | 54.93        | 54.77                     |
| EWB   | 51.45        | 51.19                     |
|       |              |                           |

Note. n=40.

<sup>a</sup>Adapted from Huggins (1988).

heavy bias due to acculturation status. One element of acculturation, ability to read English, was positively correlated with Spanish SWB, RWB, and EWB, in the total sample, highlighting the importance of orientation to test-taking skills. In the bilingual subsample, those who received the Spanish version first demonstrated less variability in scores than those who received the English version of the SWBS first, thereby emphasizing the usefulness of having the translated measure available for Hispanic people.

Internal reliabilities for the scales ranged from adequate to excellent (.68 to .92). Test-retest stability was adequate (.62 to .70), especially for the total score, SWB. Correlations between Spanish and English scale scores were excellent at .92 for SWB.

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#### CHAPTER 4

#### DISCUSSION

This concluding chapter is divided into five sections: (a) summary of findings with regard to objectives, methods, and results; (b) discussion of limitations associated with the study; (c) emphasis on need for further research; (d) recommendations for future use of the Spanish SWBS; and (e) conclusion.

Summary of Objectives, Methods, and Results

Spiritual well-being has become an area of interest for psychologists over the past 2 decades. <u>The Diagnostic and Statistical Manual of Mental</u> <u>Disorders (DSM-IV)</u> has included spiritual problems as a V-code, scales have been developed to measure spiritual health, and writers are including spiritual concerns in a holistic approach to mental health among English-speaking populations. Within psychology literature, there is a void of assessment instruments designed to measure spiritual well-being in Spanish-speaking populations. The primary goal of this study was to provide preliminary reliability and validity of a Spanish SWBS, to address this need.

To provide estimates of reliability and validity, the Spanish SWBS was administered by three different methods: total sample (Spanish-only), test-retest, and bilingual. Internal consistency estimates demonstrated good overall SWBS reliability and adequate subscale reliability. Test-retest reliability was adequate. Based upon the bilingual administration, estimates of validity were excellent. Validity was further demonstrated by comparison of mean scores of Baptists on the Spanish SWBS to norm scores for Baptists on the English SWBS, with no significant differences.

Gender, age, heritage, denomination, and level of acculturation were not significantly related to the Spanish SWBS or subscales RWB and EWB. The number of years as a Christian was not related to SWB in the total sample, but was correlated with the Spanish SWBS and EWB in the bilingual subsample. Jang (1987) also found a correlation between spiritual well-being and

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number of years lived as a Christian in his study of Chinese Americans. These findings may be related to acculturation issues, since most studies among English-speaking populations have found no relationship between SWB and number of years as a Christian. Further, Ellison (1983) specifically delineates a difference between spiritual well-being and spiritual maturity, noting the possibility for a newborn Christian to experience a "positive sense of spiritual well-being" while still in a state of spiritual immaturity. In some samples denominational factors may account for a correlation between spiritual well-being and years a Christian. In this study the researcher noted a tendency for Catholics to consider themselves Christians all their lives (individual ages were frequently equivalent to the number of years a Christian on demographic questionnaire), as opposed to some Protestants who tend to identify a particular point at which they label themselves a Christian.

Positive correlations between the number of years lived in the United States and the Spanish SWBS and RWB are consistent with Wong's (1989) results. One possible interpretation may be made in conjunction

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with the finding that ability to read English was also positively correlated with the Spanish SWBS, RWB, and EWB. In the process of data collection, it was noted that many Hispanic subjects were unfamiliar with test-taking procedures and purposes, demonstrated by looks of puzzlement and questioning. At one church, approximately 25 questionnaires were distributed, but only one was returned. Those who have lived in the United States longer are more likely to have learned English, and also to have become more familiar with the commonality of test-taking, test-taking procedures, and purposes. For example, a test is required to obtain a driver's license in the United States. Motivation to complete and return a test may be dependent upon understanding the purpose and usefulness of the test.

Ability to read English and years lived in the United States are important aspects of acculturation. The measure used in this study to assess levels of acculturation was scored on a range of 0-4. The limited range of acculturation scores may have also limited the potential for significant correlational findings with the Spanish SWBS.

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The high mean scores on the Spanish SWBS demonstrates a commonality with the English SWBS in that both translations had score distributions that are negatively skewed with a ceiling effect.

Limitations of Study

#### Sample Size and Composition

The sample sizes of the total sample ( $\underline{N}$ =111) and the bilingual subsample ( $\underline{n}$ =36) were adequate, though not representative of other geographical areas where heredity is of different proportions. Other than Baptist, the sample sizes were not sufficient to provide reliable norms for various denominations. The test-retest subsample size was small ( $\underline{n}$ =22) which may have restricted the test-retest reliability.

All samples in this study were convenience samples drawn from religious activities made known to the investigator. Socioeconomic status and level of education were not assessed and, thus, could not be examined as moderator variables. Results may not be generalizable to other religious groups, people from

other geographical areas, Hispanics from other national groups or people from constrasting standards of living.

#### Translation Issues

Accuracy of translation was enhanced with the use of a panel of translators, which included bilingual Caucasian and Hispanic people, and back-translation. Difference of opinion as to word selection was minimal and easily reconciled. Comment was made regarding the negative sentence structure of some scale items, which is not a common grammatical construction in the Spanish language. This translation was based primarily on a literal approach. Rewording some phrases to more accurately represent idiomatic conceptual ideas could potentially strengthen the scale, but may jeopardize the psychometric properties of the original scale development. Han (1993), in his initial validation work on a Korean translation of the Minnesota Multiphasic Personality Inventory (MMPI-2), encountered the same difficulty in translating "negatively phrased" items into Korean. However, in this study, as in Han's, it was decided to retain the original item direction and negative phrasing.

The strength of the bilingual reliability would support the accuracy of the translation.

As described in chapter 1, the Hispanic population in the United States is made up of a variety of heritages, each with its own unique features of the Spanish language. For some Hispanics, Spanish is a second language. Because of the concentration of Mexican-Americans in the Pacific Northwest, the translation herein proposed is targeted for that population and may not be accurate for people of other heritages. For many of Mexican origin, Spanish is a second language and the mother tongue is an indigenous language. It is not known to what degree the sample contained such participants.

In the bilingual subsample, order of presentation had no significant effect on mean scale scores, but was related to the variances of the scores on the English SWBS in the two orders of presentation. Subjects who received the Spanish SWBS before the English SWBS demonstrated significantly less variability on the English SWB and EWB, than those who received the English SWBS first. A possible interpretation is that comprehension of the English

version was aided by first having completed the Spanish version, and thus variability was reduced. This would lend support to the usefulness of administering the Spanish SWBS to Spanish-speaking Hispanics subjects, even if they are bilingual.

#### Test-taking Procedures and Instructions

The most notable observation by test administrators was the general lack of understanding by subjects of test-taking procedures and purposes. Participants seemed to be very reluctant until test purposes were fully explained. Confidentiality was emphasized in test instructions and did not appear to be explanation for subject reluctance. If the nature and purposes of testing are not understood, there is no incentive to score in a competitive manner, and hence less concern with regard to confidentiality, as well.

While sample questions do not contribute to understanding testing purposes, the development of sample questions was intended to help clarify test-taking instructions. Fewer questionnaires were excluded from the study due to missing data and response sets (5 where N=111) as compared to the

pilot test (9 where  $\underline{N}=115$ ). Reliability estimates, however, were slightly lower in this study compared to pilot study estimates. Further, internal consistency reliability estimates increased, though not to a statistically significant level, on Spanish SWBS, RWB, and EWB, on the second administration of the test-retest, suggesting that having previously taken the test improved subjects' consistency in responding, despite having had the sample questions on both administrations.

#### Limitations of Analyses

A comprehensive factor analysis was not attempted in this study. Ledbetter, Smith, Fischer, Vosler-Hunter, and Chew (1991) noted a need for improvement in the collection of evidence for the factor structure of the English SWBS based upon a factor analysis of the instrument. The Spanish SWBS appears to demonstrate a similar pattern of ambiguity between one and two factors in preliminary runs on pilot test and current test data.

The lack of availability of other reliable and valid Spanish scales measuring spiritual well-being makes comparison for further construct validity

assessment difficult. Construct validity is an important aspect of instrument development, and is particularly complicated when comparing constructs across languages.

#### Need for Further Research

More extensive research is called for to further validate the Spanish SWBS with populations of different geographical residence, with Hispanics of other cultural heritages, and with more diversity in spiritual background. Demographics should be expanded to include socioeconomic status and educational levels. A longer measure of acculturation may add information regarding interpretation of correlations with demographic variables. To be clinically useful, norms need to be established for other groups and other church denominations.

Future studies could develop an oral orientation to the test, including a review of the sample questions, to increase internal consistency reliability. Increasing consistency of responding may increase test-retest reliability, as well. Studies of test-retest stability may be enhanced by using a larger sample size and a longer time interval between administrations.

Further research is needed to establish construct validity. Factor analysis has been problematic for both the English and Spanish SWBS. Studies comparing other Spanish tests with the Spanish SWBS would provide valuable contribution.

#### Recommendation for Future Use

Future usefulness of the Spanish SWBS may include (a) as a measure for research outcome, (b) as a measure for therapy outcome, and (c) as a facilitative tool in church and counseling settings. As described in chapter 2, the English SWBS has been widely used as a measure for research outcome. As assessment tools are being developed for the Hispanic population, the Spanish SWBS may provide a valuable measure of outcome, particularly if further work is done to strengthen the psychometric properties of the Spanish SWBS.

Clinical usefulness of the Spanish SWBS is limited by the following factors: (a) normative information is not yet available for most populations; (b) the demonstrated ceiling effect precludes

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differentiation between relatively spiritually healthy individuals, making low scores significant; (c) sensitivity to change has not yet been demonstrated; and (d) the lack of test-taking familiarity among Hispanics limits meaningfulness to situations where explanation and interpretation is made available to the test-taker.

If time is taken, by clinicians or church leaders, to explain test-taking procedures and testing purposes, the Spanish SWBS could be used to identify individuals who are struggling with their spirituality, as an outcome measure with those identified as struggling with their spirituality, and as a means of raising issues for discussion.

#### Conclusion

Rapid growth of the Hispanic population in the United States has prompted recent translation of assessment measures to facilitate the delivery of effective mental health services. Instruments have been translated which measure emotional, intellectual, physical, social, and psychological well-being.

As a result of rising interest in subjective well-being in the 1970s, the Spiritual Well-Being Scale (Paloutzian & Ellison, 1982) was developed to measure spiritual well-being among English-speaking populations. The SWBS has become the most extensively researched measure of spiritual well-being, rendering it a logical choice for translation and use among Hispanic populations.

The SWBS was translated into Spanish and pilot tested (Bruce & Stagner, 1994). This study provides preliminary reliability and validation statistics supporting the Spanish SWBS by analysis of three different methods of test administration: total sample (Spanish-only), test-retest, and bilingual. Overall, the Spanish SWBS was estimated to have good internal consistency reliability and adequate subscale reliability. Test-retest stability was also adequate. Validity estimates were excellent, based upon comparison of bilingual subjects' answers in English to Spanish and comparison of Spanish SWBS mean scores to English score norms.

Limitations of the present study include the following: sample limited to predominantly Mexican Americans, socioeconomic status and educational level

not included in study, subjects not adequately oriented to test-taking procedures, factor analysis not undertaken, and demonstrated ceiling effect. Construct validity based upon the relationship of the Spanish SWBS to other Spanish scales has not been established. Consideration of these limitations in future studies may enhance the scale's usefulness and psychometric properties.

Proposed future uses for the Spanish SWBS are as a measure for research outcome, as a measure for therapy outcome, and as a tool to facilitate discussion about spiritual health. Further development of the Spanish SWBS as a valid and reliable assessment instrument may make a significant contribution to holistic mental health services offered to Hispanic Americans.

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Appendix A

Original Spiritual Well-Being Scale Unrevised

## SPIRITUAL WELL-BEING SCALE

For each of the following statements <u>circle</u> the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience:

| MA - | Strongly AgreeD = DisagreeModerately AgreeMD = ModeratelyAgreeSD = Strongly Di | Disa<br>sagi | agre<br>ree | 9   |   |    |    |
|------|--|--------------|-------------|-----|---|----|----|
| 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.   | I believe that God loves me and cares about me.                                | SA           | MA          | A   | D | MD | SD |
| 4.   | I feel that life is a positive experience.                                     | SA           | MA          | A   | D | MD | SD |
| 5.   | I believe that God is impersonal and not interested in my daily situations.    | SA           | MA          | A   | D | MD | SD |
| 6.   | I feel unsettled about my future.  | SA           | MA          | A   | Ď | MD | SD |
| 7.   | I have a personally meaningful relationship with God.                          | SA           | MA          | A   | D | MD | SD |
| 8.   | I feel very fulfilled and satisfied with life.                                 | SA           | MA          | A   | D | MD | SD |
| 9.   | I don't get much personal strength and support from my God.                    | SA           | MA          | A   | D | MD | SD |
| 10.  | I feel a sense of well-being about the direction my life is headed in.         | SA           | MA          | A   | D | MD | SD |
| 11.  | I believe that God is concerned about my problems.                             | SA           | MA          | A   | D | MD | SD |
| 12.  | I don't enjoy much about life.   | SA           | MA          | A   | D | MD | SD |
| 13.  | I don't have a personally satisfying relationship with God.                    | SA           | MA          | A   | D | MD | SD |
| 14.  | I feel good about my future.   | SA           | MA          | . A | D | MD | SD |
| 15.  | My relationship with God helps me not to feel lonely.                          | SA           | MA          | A   | D | MD | SD |
| 16.  | I feel that life is full of conflict and unhappiness.                          | SA           | MA          | A   | D | MD | SD |
| 17.  | I feel most fulfilled when I'm in close communion with God.                    | SA           | MA          | A   | D | MD | SD |
| 18.  | Life doesn't have much meaning.  | SA           | MA          | A   | D | MD | SD |
| 19.  | My relation with God contributes to my sense of well-being.                    | Sa           | MA          | A   | D | MD | SD |
| 20.  | I believe there is some real purpose for my life.                              | SA           | MA          | A   | D | MD | SD |

Note. From "Spiritual Well-Being: Conceptualization and Measurement" by C. W. Ellison, 1983, <u>Journal of Psychology and Theology</u>, <u>11</u>, p. 340. SWB Scale Copyright 1982 by Craig W. Ellison and Raymond F. Paloutzian. All rights reserved. Not to be duplicated unless express written permission is granted by the authors or by Life Advance, Inc., 81 Front St., Nyack, NY 10960. Reprinted by permission. Items are scored from 1 to 6, with a higher number representing more well-being. Reverse scoring for negatively worded items. Odd-numbered items assess religious well-being; even numbered items assess existential well-being.

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Appendix B

Pilot Study Results

Table B-1

## Descriptive Statistics of Demographic Variables

| for | Pilot | Test | Sample |
|-----|-------|------|--------|
|     |       |      |        |

| Variable     | Frequency   | Percent  |
|--------------|---|--|
| Gender       | 9 <b>-2011, 1927, 493, 495, 496, 497, 497, 497, 497, 497, 497, 497, 497</b> | 944 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - |
| Female       | 54  | 47.8   |
| Male         | 59  | 52.2   |
| Missing      | 2   |  |
| Age          |   |  |
| 15-20        | 12  | 11.0   |
| 21-30        | 40  | 36.8   |
| 31-40        | 29  | 26.7   |
| 41-50        | 13  | 12.0   |
| 51-60        | 10  | 7.3  |
| 61-70        | 3   | 2.7  |
| 71-80        | 2   | 1.8  |
| Missing      | 6   |  |
| Denomination |   |  |
| Baptist      | 40  | 34.8   |
| Catholic     | 45  | 39.2   |

(table continues)

Table B-1--Continued

| Variable          | Frequency | Percent |
|-------------------|-----------|---------|
| Denomination      |           |         |
| Friends           | 23        | 20.0    |
| Missing           | 7         |         |
| Years in U.S.     |           |         |
| <u>&lt;</u> 10    | 54        | 49.6    |
| 11-20             | 31        | 28.5    |
| 21+               | 24        | 21.7    |
| Missing           | б         |         |
| Years a Christian |           |         |
| <u>&lt;</u> 10    | 47        | 40.7    |
| 11-20             | 21        | 18.3    |
| 21+               | 39        | 36.3    |
| Missing           | 8         |         |

Note. <u>n</u>=115.

•

Table B-2

| ~ ·        | ~  | ~ · ·   | ~ ~  |       |      | ~      |
|------------|----|---------|------|-------|------|--------|
| Comparison | οf | Spanish | SWBS | Pilot | Test | Scores |

| to English Norms   |              |                           |
|--------------------|--------------|---------------------------|
| Scale              | Spanish SWBS | English SWBS <sup>a</sup> |
| Group 1 - Friends  |              |                           |
| SWB                | 96.40        | 105.72 <sup>a</sup>       |
| RWB                | 50.50        | 55.90 <sup>a</sup>        |
| EWB                | 46.54        | 49.83 <sup>a</sup>        |
| Group 2 - Catholic |              |                           |
| SWB                | 101.59       | 102.35 <sup>a</sup>       |
| RWB                | 52.27        | 52.83 <sup>a</sup>        |
| EWB                | 49.00        | 49.52 <sup>a</sup>        |
| Group 3 - Catholic |              |                           |
| SWB                | 99.52        | 102.35 <sup>a</sup>       |
| RWB                | 50.57        | 52.83 <sup>a</sup>        |
| EWB                | 48.95        | 49.52 <sup>a</sup>        |
|                    |              |                           |

(table continues)

Table B-2--Continued

| Scale   | Spanish SWBS                                | English SWBS <sup>a</sup> |  |  |  |  |
|---|---|---------------------------|--|--|--|--|
| Group 4 - Baptist                                 |   |                           |  |  |  |  |
|   |   | b                         |  |  |  |  |
| SWB   | 103.82                                      | 105.93 <sup>b</sup>       |  |  |  |  |
| RWB   | 52.22                                       | 54.77 <sup>b</sup>        |  |  |  |  |
| EWB   | 50.03                                       | 51.19 <sup>b</sup>        |  |  |  |  |
|   |   |                           |  |  |  |  |
| Note. <u>n</u> =108.                              |   |                           |  |  |  |  |
| <sup>a</sup> The data are from                    | "Measuring Christian                        | Maturity:                 |  |  |  |  |
| A Comparison of Several Scales" by R. L. Bassett, |   |                           |  |  |  |  |
| W. Camplin, D. Hump                               | W. Camplin, D. Humphrey, C. Dorr, S. Biggs, |                           |  |  |  |  |
| R. Distaffen, I. Doxtator, M. Flaherty,           |   |                           |  |  |  |  |
| P. J. Hunsberger, R                               | . Poage, and H. Thomp                       | son, 1991,                |  |  |  |  |

1943B. (University Microfilms International, 88-14665).

Attendance, Personal Devotions, and Church Attendance

Journal of Psychology and Theology, 19, 84-93.

<sup>b</sup>The data are from "The Effect of Small Group

on Spiritual Well-Being" by S. M. Huggins, 1988,

Dissertation Abstracts International, 49,

Table B-3

| Group      | <u>n</u> | SWB | RWB | EWB |
|------------|----------|-----|-----|-----|
|            |          |     |     |     |
| Friends    | 20       | •93 | .86 | .87 |
| Catholic 1 | 22       | .86 | .82 | .71 |
| Catholic 2 | 21       | .69 | .48 | •55 |
| Baptist    | 28       | .85 | .82 | .66 |
| Total      | 91       | .86 | •78 | •76 |
|            |          |     |     |     |

Internal Consistencies<sup>a</sup> of Pilot Test Spanish SWBS

Note. <sup>a</sup>Cronbach's (1951) alpha.

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Appendix C

Demographic Frequencies

| Number of valid observations (listwise) = 111.00 |       |         |             |              |            |       |
|--|-------|---------|-------------|--------------|------------|-------|
| Variable   | Mean  | Std Dev | Minimum     | Maximum      | Valid<br>N | Label |
| Varrabic   | neati |         | 1 LIIL MOLL | 1 Id A Amoun | 14         | Daver |
| Q1   | 4.91  | 1.71    | 1.00        | 6.00         | 111        |       |
| Q2   | 5.32  | 1.41    | 1.00        | 6.00         | 111        |       |
| Q3   | 1.16  | .64     | 1.00        | 6.00         | 111        |       |
| Q4   | 1.45  | .88     | 1.00        | 5.00         | 111        |       |
| Q5   | 5.63  | .83     | 1.00        | 6.00         | 111        |       |
| Q6   | 4.65  | 1.81    | 1.00        | 6.00         | 111        |       |
| Q7   | 1.56  | .99     | 1.00        | 6.00         | 111        |       |
| Q8   | 1.84  | 1.15    | 1.00        | 6.00         | 111        |       |
| Q9   | 5.54  | 1.07    | 1.00        | 6.00         | 111        |       |
| Q10  | 1.87  | 1.27    | 1.00        | 6.00         | 111        |       |
| Q11  | 1.28  | .79     | 1.00        | 6.00         | 111        |       |
| Q12  | 5.23  | 1.31    | 1.00        | 6.00         | 111        |       |
| Q13  | 5.21  | 1.42    | 1.00        | 6.00         | 111        |       |
| Q14  | 1.94  | 1.32    | 1.00        | 6.00         | 111        |       |
| Q15  | 1.42  | 1.10    | 1.00        | 6.00         | 111        |       |
| Q16  | 4.01  | 1.68    | 1.00        | 6.00         | 111        |       |
| Q17  | 1.32  | .96     | 1.00        | 6.00         | 111        |       |
| Q18  | 5.32  | 1.32    | 1.00        | 6.00         | 111        |       |
| Q19  | 1.42  | 1.05    | 1.00        | 6.00         | 111        |       |
| Q20  | 1.36  | 1.02    | 1.00        | 6.00         | 111        |       |

| Value Label                                     | L   | Value   | Frequency                                 | Percent  | Valid<br>Percent                               | Cum<br>Percent  |
|---|---|---|---|--|--|---|
|   |   | 1.00<br>2.00<br>3.00<br>4.00<br>5.00<br>6.00<br>7.00<br>Total | 54<br>11<br>10<br>1<br>17<br>11<br>7<br>7 | 48.6<br>9.9<br>9.0<br>.9<br>15.3<br>9.9<br>6.3 | 48.6<br>9.9<br>9.0<br>.9<br>15.3<br>9.9<br>6.3 | 48.6<br>58.6<br>67.6<br>68.5<br>83.8<br>93.7<br>100.0 |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 2.793<br>1.000<br>-1.092<br>.229<br>7.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum                | .203<br>2.137<br>.455<br>6.000<br>310.000 | Median<br>Variance<br>Skewness<br>Minimum      |  | 2.000<br>4.566<br>.714<br>1.000                       |

| Valid | cases | 111 | Missing | cases | 0 |
|-------|-------|-----|---------|-------|---|
|       |       |     |         |       |   |

## SEX

| Value Label   | L   | Value  | Frequency                                | Percent            | Valid<br>Percent        | Cum<br>Percent                 |
|---|---|--|--|--------------------|-------------------------|--------------------------------|
|   |   | 1.00   | 62<br>48<br>1                            | 55.9<br>43.2<br>.9 | 56.4<br>43.6<br>Missing | 56.4<br>100.0                  |
|   |   | Total  | 111                                      | 100.0              | 100.0                   |                                |
| Mean<br>Mod <b>e</b><br>Kurtosis<br>S E Skew<br>Maximum | 1.436<br>1.000<br>-1.968<br>.230<br>2.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .048<br>.498<br>.457<br>1.000<br>158.000 |                    | ance<br>mess            | 1.000<br>.248<br>.260<br>1.000 |

| Valid | cases | 110 | Missing | cases | 1 |
|-------|-------|-----|---------|-------|---|
|       |       |     |         |       |   |

GROUP

Value Label

| Value          | Frequency                  | Percent   | Valid<br>Percent | Cum<br>Percent |
|----------------|----------------------------|-----------|------------------|----------------|
| 18.00          | 2                          | 1.8       | 2.0              | 2.0            |
| 19.00          | 4                          | 3.6       | 4.0              | 5.9            |
| 20.00          | 4                          | 3.6       | 4.0              | 9.9            |
| 21.00          | 4                          | 3.6       | 4.0              | 13.9           |
| 22.00          | 3                          | 2.7       | 3.0              | 16.8           |
| 23.00          | 4                          | 3.6       | 4.0              | 20.8           |
| 24.00          | 5                          | 4.5       | 5.0              | 25.7           |
| 25.00          | 6                          | 5.4       | 5.9              | 31.7           |
| 26.00          | - 1                        | . 9       | 1.0              | 32.7           |
| 27.00          | 4                          | 3.6       | 4.0              | 36.6           |
| 28.00          | 8                          | 7.2       | 7.9              | 44.6           |
| 29.00<br>30.00 | 4                          | 3.6       | 4.0              | 48.5           |
|                | 2                          | 1.8       | 2.0              | 50.5           |
| 31.00<br>32.00 | 1                          | .9        | 1.0              | 51.5           |
| 32.00          | 2<br>6                     | 1.8       | 2.0              | 53.5           |
| 34.00          | 1                          | 5.4<br>.9 | 5.9<br>1.0       | 59.4           |
| 35.00          | 1                          | .9        | 1.0              | 60.4<br>61.4   |
| 36.00          | 1                          | .9        | 1.0              | 62.4           |
| 37.00          | 2                          | 1.8       | 2.0              | 64.4           |
| 38.00          | 2<br>3<br>2<br>3<br>3<br>3 | 2.7       | 3.0              | 67.3           |
| 39.00          | 2                          | 1.8       | 2.0              | 69.3           |
| 40.00          | 3                          | 2.7       | 3.0              | 72.3           |
| 41.00          | 3                          | 2.7       | 3.0              | 75.2           |
| 42.00          |                            | 2.7       | 3.0              | 78.2           |
| 43.00          | 3                          | 2.7       | 3.0              | 81.2           |
| 45.00          | 4                          | 3.6       | 4.0              | 85.1           |
| 46.00          | 1                          | . 9       | 1.0              | 86.1           |
| 47.00          | 3                          | 2.7       | 3.0              | 89.1           |
| 52.00          | 1                          | . 9       | 1.0              | 90.1           |
| 55.00          | 1                          | . 9       | 1.0              | 91.1           |
| 56.00          | 3                          | 2.7       | 3.0              | 94.1           |
| 58.00          | 2<br>1                     | 1.9       | 2.0              | 96.0           |
| 60.00<br>63.00 | 1                          | . 9       | 1.0              | 97.0           |
| 66.00          | 1                          | .9        | 1.0              | 98.0           |
| 69.00          | 1                          | .9<br>.9  | 1.0              | 99.0           |
| 03.00          | 10                         | 9.0       | Missing          | 100.0          |
| •              |                            |           |                  |                |
| Total          | 111                        | 100.0     | 100.0            |                |
| . –            |                            |           |                  |                |

AGE

| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 33.822<br>28.000<br>.184<br>.240<br>69.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | 1.200<br>12.064<br>.476<br>51.000<br>3416.000 | Median<br>Variance<br>Skewness<br>Minimum | 30.000<br>145.548<br>.895<br>18.000 |
|---|--|--|---|---|-------------------------------------|
|   |  |  | 51201000                                      |   |                                     |

Valid cases 101 Missing cases 10

AGE

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DENOM

| Value Label |       | Value     | Frequency | Percent  | Valid<br>Percent | Cum<br>Percent |
|-------------|-------|-----------|-----------|----------|------------------|----------------|
|             |       | 1.00      | 40        | 36.0     | 53.3             | 53.3           |
|             |       | 2.00      | 6         | 5.4      | 8.0              | 61.3           |
|             |       | 3.00      | 18        | 16.2     | 24.0             | 85.3           |
|             |       | 4.00      | 4         | 3.6      | 5.3              | 90.7           |
|             |       | 5.00      | 1         | . 9      | 1.3              | 92.0           |
|             |       | 6.00      | 1<br>2    | 1.8      | 2.7              | 94.7           |
|             |       | 7.00      | 1         | . 9      | 1.3              | 96.0           |
|             |       | 8.00      | 1<br>3    | 2.7      | 4.0              | 100.0          |
|             |       | •         | 36        | 32.4     | Missing          |                |
|             |       | Total     | 111       | 100.0    | 100.0            |                |
| Mean        | 2.267 | Std err   | . 209     | Medi     | an               | 1.000          |
| Mode        | 1.000 | Std dev   | 1.811     |          | ance             | 3.279          |
| Kurtosis    | 2.778 | S E Kurt  | . 548     |          | mess             | 1.736          |
| S E Skew    | .277  | Range     | 7.000     | Mini     |                  | 1.000          |
| Maximum     | 8.000 | Sum       | 170.000   |          |                  |                |
| Valid cases | 75    | Missing c | ases 36   | <b>;</b> |                  |                |

| YRS | US |
|-----|----|
|-----|----|

Value Label

| Value  | Frequency  | Percent   | Valid<br>Percent   | Cum<br>Percent   |
|--|--|---|--|--|
| $\begin{array}{c} .10\\ .20\\ .30\\ .50\\ .80\\ 1.00\\ 1.50\\ 2.50\\ 2.60\\ 3.00\\ 4.00\\ 5.00\\ 6.00\\ 7.00\\ 9.00\\ 10.00\\ 11.00\\ 12.00\\ 14.00\\ 15.00\\ 15.00\\ 15.00\\ 15.00\\ 20.00\\ 21.00\\ 22.00\\ 24.00\\ 25.00\\ 2$ | 2<br>1<br>1<br>3<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>0<br>7<br>6<br>5<br>6<br>8<br>5<br>2<br>4<br>4<br>3<br>2<br>1<br>2<br>3<br>2<br>4<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 1.8<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9 | 1.9<br>.9<br>2.8<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9<br>.9 | 1.9<br>2.8<br>3.7<br>5.4<br>9.3<br>10.2<br>0<br>13.0<br>9.2<br>3.9<br>5.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.8<br>4.5<br>2.9<br>7.7<br>7.6<br>5.9<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>9.9<br>9.2.5<br>4.3<br>9.9<br>9.9<br>9.9<br>9.5.4<br>9.9<br>9.9<br>9.9<br>9.9<br>9.9<br>9.9<br>9.9<br>9.9<br>9.9<br>9 |

YRSUS

|   |  | 67.00  | · 1<br>3                                      | .9<br>2.7 | .9<br>Missing | 100.0                             |
|---|--|--|---|-----------|---------------|-----------------------------------|
|   |  | Total  | 111   | 100.0     | 100.0         |                                   |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 12.844<br>3.000<br>3.546<br>.233<br>67.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | 1.276<br>13.257<br>.461<br>66.900<br>1387.200 |           | ance<br>mess  | 8.000<br>175.753<br>1.844<br>.100 |
| Valid cases                                     | 108  | Missing ca                                     | ases 3  |           |               |                                   |

| Value Label  |              | Value              | Frequency       | Percent    | Valid<br>Percent | Cum<br>Percent |
|--------------|--------------|--------------------|-----------------|------------|------------------|----------------|
|              |              | . 20               | 3               | 2.7        | 2.9              | 2.9            |
|              |              | . 30               | 3               | 2.7        | 2.9              | 5.8            |
|              |              | . 40               | 1               | . 9        | 1.0              | 6.7            |
|              |              | 1.00<br>1.50       | 4               | 3.6        | 3.8              | 10.6           |
|              |              | 1.50               | 1               | · .9<br>.9 | 1.0              | 11.5<br>12.5   |
|              |              | 2.00               | 6               | 5.4        | 5.8              | 18.3           |
|              |              | 2.50               | - 1             | .9         | 1.0              | 19.2           |
|              |              | 3.00               | 5               | 4.5        | 4.8              | 24.0           |
|              |              | 3.50               | 1               | .9         | 1.0              | 25.0           |
|              |              | 4.00<br>5.00       | 3<br>1          | 2.7        | 2.9<br>1.0       | 27.9           |
|              |              | 6.00               | 3               | 2.7        | 2.9              | 28.8<br>31.7   |
|              |              | 6.50               | . 1             | . 9        | 1.0              | 32.7           |
|              |              | 7.00               | 3               | 2.7        | 2.9              | 35.6           |
|              |              | 7.50               | 1               | .9         | 1.0              | 36.5           |
|              |              | 8.00               | 4               | 3.6        | 3.8              | 40.4           |
|              |              | 9.00<br>9.50       | 6<br>1          | 5.4<br>.9  | 5.8<br>1.0       | 46.2           |
|              |              | 10.00              | 5               | 4.5        | 4.8              | 47.1.<br>51.9  |
|              |              | 13.00              | 1               | .9         | 1.0              | 52.9           |
|              |              | 15.00              | 4               | 3.6        | 3.8              | 56.7           |
|              |              | 16.00              | 1               | . 9        | 1.0              | 57.7           |
|              |              | 17.00              | 2               | 1.8        | 1.9              | 59.6           |
|              |              | 18.00              | 1               | .9         | 1.0              | 60.6           |
|              |              | 19.00<br>20.00     | 1<br>2          | .9<br>1.8  | 1.0<br>1.9       | 61.5<br>63.5   |
|              |              | 21.00              | 2               | 1.8        | 1.9              | 65.4           |
|              |              | 22.00              | 1               | . 9        | 1.0              | 66.3           |
|              |              | 23.00              | 3               | 2.7        | 2.9              | 69.2           |
|              |              | 24.00              | 1               | . 9        | 1.0              | 70.2           |
|              |              | 25.00              | 3               | 2.7        | 2.9              | 73.1           |
|              |              | 26.00<br>28.00     | 1               | .9<br>.9   | 1.0<br>1.0       | 74.0<br>75.0   |
|              |              | 30.00              | 4               | 3.6        | 3.8              | 78.8           |
|              |              | 33.00              | 3               | 2.7        | 2.9              | 81.7           |
|              |              | 35.00              | 5               | 4.5        | 4.8              | 86.5           |
|              |              | 37.00              | 1               | . 9        | 1.0              | 87.5           |
|              |              | 38.00              | 1               | . 9        | 1.0              | 88.5           |
|              |              | 41.00              | 1               | .9         | 1.0              | 89.4           |
|              |              | 42.00<br>43.00     | 1 2             | .9<br>1.8  | 1.0<br>1.9       | 90.4<br>92.3   |
|              |              | 44.00              | 1               | 1.9        | 1.0              | 93.3           |
|              |              | 45.00              | 2               | 1.8        | 1.9              | 95.2           |
|              |              | 50.00              | 1               | . 9        | 1.0              | 96.2           |
|              |              | 57.00              | 1               | . 9        | 1.0              | 97.1           |
| YRSCHR       |              |                    |                 |            |                  |                |
|              |              |                    |                 |            |                  |                |
|              |              | 58.00              | 1               | .9         | 1.0              | 98.1           |
|              |              | 66.00<br>69.00     | 1               | .9<br>.9   | 1.0<br>1.0       | 99.0<br>100.0  |
|              |              |                    | 7               | 6.3        | Missing          | 100.0          |
|              |              | Total              | 111             | 100.0      |                  |                |
| Mean         | 17.457       | Std err            | 1 605           | Madi       | an               | 10.000         |
| Mean<br>Mode | 2.000        | Std err<br>Std dev | 1.605<br>16.363 | Vari       | an<br>ance       | 267.756        |
| Kurtosis     | .521         | S E Kurt           | .469            | Skew       | mess             | 1.058          |
| S E Skew     | .521<br>.237 | Range<br>Sum       | .469<br>68.800  | Mini       | mum              | .200           |
| Maximum      | 69.000       | Sum                | 1815.500        |            |                  |                |
| * Multiple m | odes exist.  | The small          | est value i     | s shown.   |                  |                |
| Valid cases  | 104          | Missing c          | ases 7          |            |                  |                |

|   |   |  |   |   | Valid  | Cum                                   |
|---|---|--|---|---|--|---------------------------------------|
| Value Label                                     |   | Value  | Frequency                                 | Percent   | Percent  | Percent                               |
|   |   | 1.00<br>2.00<br>3.00<br>4.00<br>5.00<br>6.00<br>7.00 | 75<br>1<br>2<br>12<br>8<br>4<br>2<br>7    | 1.8<br>10.8<br>7.2<br>3.6<br>1.8<br>6.3             | 72.1<br>1.0<br>1.9<br>11.5<br>7.7<br>3.8<br>1.9<br>Missing | 75.0<br>86.5                          |
|   |   | Total  | 111                                       | 100.0   | 100.0  |                                       |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 2.010<br>1.000<br>.481<br>.237<br>7.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum       | .170<br>1.738<br>.469<br>6.000<br>209.000 | Medi<br>Vari<br>Skew<br>Mini                        | an<br>Ance<br>Mess<br>mum                                  | 1.000<br>3.019<br>1.389<br>1.000      |
| Valid cases                                     | 104                                     | Missing c  | ases 7                                    |   |  |                                       |
| ACCUL<br>Value Label                            |   | Value  | Frequency                                 | Percent   | Valid<br>Percent   |                                       |
|   |   | 0<br>1<br>2<br>3<br>4<br>Total                       |   | 10.8<br>45.0<br>23.4<br>5.4<br>1.8<br>13.5<br>100.0 |  | 12.5<br>64.6<br>91.7<br>97.9<br>100.0 |
| Kurtosis<br>S E Skew                            | 1.000                                   |  |   |   |  | 1.000<br>.730<br>.743<br>.000         |
| Valid cases                                     | 96                                      | Missing c  | ases 15                                   |   |  |                                       |

### PREFLAN

| Value Label                                     |  | Value  | Frequency                                | Percent                                   | Valid<br>Percent                | Cum<br>Percent                |
|---|--|--|--|---|---------------------------------|-------------------------------|
|   |  | 1.00<br>2.00<br>3.00                           | 3<br>55<br>43<br>10                      | 2.7<br>49.5<br>38.7<br>9.0                |                                 | 3.0<br>57.4<br>100.0          |
|   |  | Total  | 111                                      | 100.0                                     | 100.0                           |                               |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 2.396<br>2.000<br>936<br>.240<br>3.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .055<br>.549<br>.476<br>2.000<br>242.000 | Median<br>Variance<br>Skewness<br>Minimum |                                 | 2.000<br>.302<br>130<br>1.000 |
| Valid cases                                     | 101                                    | Missing c                                      | ases 10                                  |   |                                 |                               |
| SPKHSE  |  |  |  |   |                                 |                               |
| Value Label                                     |  | Value  | Frequency                                | Percent                                   | Valid<br>Percent                | Cum<br>Percent                |
|   |  | 1.00<br>2.00<br>3.00                           | 11<br>67<br>26<br>7                      | 9.9<br>60.4<br>23.4<br>6.3                | 10.6<br>64.4<br>25.0<br>Missing | 10.6<br>75.0<br>100.0         |
|   |  | Total  | 111                                      | 100.0                                     | 100.0                           |                               |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 2.144<br>2.000<br>136<br>.237<br>3.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .057<br>.582<br>.469<br>2.000<br>223.000 | Vari<br>Skev                              | an<br>ance<br>mess<br>mum       | 2.000<br>.338<br>019<br>1.000 |

### SPKCHLD

| Value Label                                     |   | Value  | Frequency                                | Percent            | Valid<br>Percent                |                                 |
|---|---|--|--|--------------------|---------------------------------|---------------------------------|
|   |   | 1.00<br>2.00<br>3.00<br>4.00<br>Total          | 94<br>1<br>2<br>7                        | .9<br>1.8<br>6.3   |                                 | 98.1                            |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 1.981<br>2.000<br>14.397<br>.237<br>4.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .039<br>.394<br>.469<br>3.000<br>206.000 | Vari<br>Skew       | an<br>ance<br>mess<br>mum       | 2.000<br>.155<br>1.772<br>1.000 |
| Valid cases                                     | 104                                       | Missing C                                      | as <b>es</b> 7                           |                    |                                 |                                 |
| RDENG   |   |  | <b></b>                                  |                    |                                 |                                 |
|   |   |  |  |                    |                                 |                                 |
| Value Label                                     |   | Value  | Frequency                                | Percent            | Percent                         | Percent                         |
|   |   | 1.00<br>2.00<br>3.00<br>4.00                   | 29<br>25<br>12<br>10                     |                    | 28.7<br>24.8<br>11.9<br>Missing | 34.7<br>63.4<br>88.1<br>100.0   |
|   |   | Total  | 111                                      | 100.0              | 100.0                           |                                 |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 2.139<br>1.000<br>-1.047<br>.240<br>4.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .476                                     |                    | an<br>ance<br>mess<br>mum       | 2.000<br>1.061<br>.389<br>1.000 |
| Valid cases                                     | 101                                       | Missing c                                      | ases 10                                  |                    |                                 |                                 |
| RDSPAN  |   |  |  |                    |                                 |                                 |
| Value Label                                     |   | Value  | Frequency                                | Percent            | Valid<br>Percent                |                                 |
|   |   | 1.00<br>2.00                                   | 100<br>4<br>7                            | 90.1<br>3.6<br>6.3 |                                 |                                 |
|   |   | Total  | 111                                      | 100.0              | 100.0                           |                                 |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 1.038<br>1.000<br>22.148<br>.237<br>2.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .019<br>.193<br>.469<br>1.000<br>108.000 | Skew               | an<br>ance<br>mess<br>.mum      | 1.000<br>.037<br>4.871<br>1.000 |
| Valid cases                                     | 104                                       | Missing c                                      | ases 7                                   |                    |                                 |                                 |

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SEX

| Value Label                                      |   | Value   | Frequency                               | Percent             | Valid<br>Percent        | Cum<br>Percent                 |
|--|---|---|---|---------------------|-------------------------|--------------------------------|
|  |   | 1.00<br>2.00                                    | 14<br>7<br>1                            | 63.6<br>31.8<br>4.5 | 66.7<br>33.3<br>Missing | 6 <b>6.</b> 7<br>100.0         |
|  |   | Total   | 22                                      | 100.0               | 100.0                   |                                |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximuma | 1.333<br>1.000<br>-1.579<br>.501<br>2.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Suma | .105<br>.483<br>.972<br>1.000<br>28.000 |                     | ance<br>mess            | 1.000<br>.233<br>.763<br>1.000 |
| Valid cases                                      | 21  | Missing o                                       | ases 1                                  |                     |                         |                                |

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Valid cases 21 Missing cases 1

AGE

| Value Label |        | Value    | Frequency   | Percent | Valid<br>Percent | Cum<br>Percent |
|-------------|--------|----------|-------------|---------|------------------|----------------|
|             |        | 22.00    | 1           | 4.5     | 4.8              | 4.8            |
|             |        | 23.00    | 1           | 4.5     | 4.8              | 9.5            |
|             |        | 25.00    | 1<br>2<br>1 | 9.1     | 9.5              | 19.0           |
|             |        | 27.00    | 1           | 4.5     | 4.8              | 23.8           |
|             |        | 28.00    | 3           | 13.6    | 14.3             | 38.1           |
|             |        | 29.00    | 1           | 4.5     | 4.8              | 42.9           |
|             |        | 30.00    | 1<br>1<br>2 | 4.5     | 4.8              | 47.6           |
|             |        | 33.00    | 2           | 9.1     | 9.5              | 57.1           |
|             |        | 36.00    | 1           | 4.5     | 4.8              | 61.9           |
|             |        | 38.00    | 1           | 4.5     | 4.8              | 66.7           |
|             |        | 39.00    | 1           | 4.5     | 4.8              | 71.4           |
|             |        | 40.00    | 1           | 4.5     | 4.8              | 76.2           |
|             |        | 42.00    | 1           | 4.5     | 4.8              | 81.0           |
|             |        | 43.00    | l           | 4.5     | 4.8              | 85.7           |
|             |        | 47.00    | 1<br>1      | 4.5     | 4.8              | 90.5           |
|             |        | 56.00    |             | 4.5     | 4.8              | 95.2           |
|             |        | 63.00    | 1           | 4.5     | 4.8              | 100.0          |
|             |        | •        | 1           | 4.5     | Missing          | 3              |
|             |        | Total    | 22          | 100.0   | 100.0            |                |
| Mean        | 35.000 | Std err  | 2.353       | Medi    | an               | 33.000         |
| Mode        | 28.000 | Std dev  | 10.784      | Vari    | ance             | 116.300        |
| Kurtosis    | 1.085  | S E Kurt | . 972       | Skew    | mess             | 1.154          |
| S E Skew    | .501   | Range    | 41.000      | Mini    | mum              | 22.000         |
| Maximum     | 63.000 | Sum      | 735.000     |         |                  |                |
|             |        |          |             |         |                  |                |

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| Value Label                                     |   | Value<br>1.00<br>2.00<br>Total                 | Frequency<br>14<br>1<br>7<br>             | Percent<br>63.6<br>4.5<br>31.8<br> | 93.3<br>6.7                 | Cum<br>Percent<br>93.3<br>100.0        |
|---|---|--|---|------------------------------------|-----------------------------|--|
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 1.067<br>1.000<br>15.000<br>.580<br>2.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .067<br>.258<br>1.121<br>1.000<br>.16.000 | Skew                               | an<br>ance<br>mess<br>mum   | 1.000<br>.067<br>3.873<br>1.000        |
| Valid cases                                     | 15  | Missing c                                      | ases 7                                    |                                    |                             |  |
| HERIT   |   |  |   |                                    |                             | •••••••••••••••••••••••••••••••••••••• |
| Value Label                                     |   | Value  | Frequency                                 | Percent                            | Valid<br>Percent            | Cum<br>Percent                         |
|   |   | 1.00<br>4.00<br>5.00<br>6.00                   | 13<br>4<br>3<br>2                         | 59.1<br>18.2<br>13.6<br>9.1        | 59.1<br>18.2<br>13.6<br>9.1 | 59.1<br>77.3<br>90.9<br>100.0          |
|   |   | Total  | 22  | 100.0                              | 100.0                       |  |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 2.545<br>1.000<br>-1.434<br>.491<br>6.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .420<br>1.969<br>.953<br>5.000<br>56.000  |                                    | ance<br>mess                | 1.000<br>3.879<br>.625<br>1.000        |

Valid cases 22 Missing cases 0

DENOM

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YRSU**S** 

|             |              |           |             |          | Valid   | Cum     |
|-------------|--------------|-----------|-------------|----------|---------|---------|
| Value Label | 1            | Value     | Frequency   | Percent  | Percent | Percent |
|             |              | .10       | 1           | 4.5      | 4.5     | 4.5     |
|             |              | .20       | 1           | 4.5      | 4.5     | 9.1     |
|             |              | 3,00      | 1<br>3      | 13.6     | 13.6    | 22.7    |
|             |              | 4.00      | 2           | 9.1      | 9.1     | 31.8    |
|             |              | 5.00      | 2 2         | 9.1      | 9.1     | 40.9    |
|             |              | 6.00      | 1           | 4.5      | 4.5     | 45.5    |
|             |              | 8.00      | 3           | 13.6     | 13.6    | 59.1    |
|             |              | 9.00      | 1           | 4.5      | 4.5     | 63.6    |
|             |              | 11.00     | 1           | 4.5      | 4.5     | 68.2    |
|             |              | 12.00     | 1<br>2<br>2 | 9.1      | 9.1     | 77.3    |
|             |              | 14.00     | 2           | 9.1      | 9.1     | 86.4    |
|             |              | 18.00     | 1           | 4.5      | 4.5     | .90.9   |
|             |              | 42.00     | 1           | 4.5      | 4.5     | 95.5    |
|             |              | 43.00     | 1           | 4.5      | 4.5     | 100.0   |
|             |              | Total     | 22          | 100.0    | 100.0   | -       |
| Mean        | 10.559       | Std err   | 2.419       | Medi     | an      | 8.000   |
| Mode        | 3.000        | Std dev   | 11.346      |          | ance    | 128.723 |
| Kurtosis    | 4.660        | S E Kurt  | . 953       |          | mess    | 2.192   |
| S E Skew    | .491         | Range     | 42.900      |          | mum     | .100    |
| Maximum     | 43.000       | Sum       | 232.300     |          |         |         |
| * Multiple  | modes exist. | The small | est value i | s shown. |         |         |

Valid cases 22 Missing cases 0

4363

01 May 96 SPSS for MS WINDOWS Release 6.0

YRSCHR

| Value Label |        | Value    | Frequency   | Percent | Valid<br>Percent |         |
|-------------|--------|----------|-------------|---------|------------------|---------|
|             |        | .20      | 1           | 4.5     | 4.8              | 4.8     |
|             |        | 2.00     | 1           | 4.5     | 4.8              | 9.5     |
|             |        | 2.50     | 1           | 4.5     | 4.8              | 14.3    |
|             |        | 4.00     | 1           | 4.5     | 4.8              | 19.0    |
|             |        | 7.00     | 1           | 4.5     | 4.8              | 23.8    |
|             |        | 7.50     |             | 4.5     | 4.8              | 28.6    |
|             |        | 8.00     | 1<br>3      | 13.6    | 14.3             | 42.9    |
|             |        | 9.00     |             | 4.5     | 4.8              | 47.6    |
|             |        | 10.00    | 1<br>1<br>1 | 4.5     | 4.8              | 52.4    |
|             |        | 13.00    | 1           | 4.5     | 4.8              | 57.1    |
|             |        | 17.00    | 1           | 4.5     | 4.8              | 61.9    |
|             |        | 20.00    | 1           | 4.5     | 4.8              | 66.7    |
|             |        | 23.00    | 1           | 4.5     | 4.8              | 71.4    |
|             |        | 25.00    | 1           | 4.5     | 4.8              | 76.2    |
|             |        | 30.00    | 1           | 4.5     | 4.8              | 81.0    |
|             |        | 35.00    | 3           | 13.6    | 14.3             | 95.2    |
|             |        | 57.00    | 1           | 4.5     | 4.8              | 100.0   |
|             |        | •        | 1           | 4.5     | Missing          | I       |
|             |        | Total    | 22          | 100.0   | 100.0            | •       |
| Mean        | 16.962 | Std err  | 3.199       | Medi    | an               | 10.000  |
| Mode        | 8.000  | Std dev  | 14.661      |         | ance             | 214.935 |
| Kurtosis    | 1.121  | S E Kurt | . 972       |         | mess             | 1.168   |
| S E Skew    | .501   | Range    | 56.800      |         | mum              | .200    |
| Maximum     | 57.000 | Sum      | 356.200     |         |                  |         |
|             |        |          |             |         |                  |         |

\* Multiple modes exist. The smallest value is shown.

Valid cases 21 Missing cases 1

Retest:

ACCUL

| Value Label |    | Valu <b>e</b> F             | requency          | Percent                    | Valid<br>Percent           | Cum<br>Percent                      |  |
|-------------|----|-----------------------------|-------------------|----------------------------|----------------------------|-------------------------------------|--|
|             |    | .00<br>1.00<br>2.00<br>3.00 | 1<br>13<br>6<br>2 | 4.5<br>59.1<br>27.3<br>9.1 | 4.5<br>59.1<br>27.3<br>9.1 | <b>4.5</b><br>63.6<br>90.9<br>100.0 |  |
|             |    | Total                       | 22                | 100.0                      | 100.0                      |                                     |  |
| Valid cases | 22 | Missing cas                 | ies 0             |                            |                            |                                     |  |

144

GROUP

| Value Label                                     |   | Valu <del>e</del>                              | Frequency                                 | Percent                              | Valid<br>Percent                     | Cum<br>Percent                        |
|---|---|--|---|--------------------------------------|--------------------------------------|---------------------------------------|
|   |   | 1.00<br>2.00<br>5.00<br>6.00<br>7.00           | 12<br>4<br>6<br>7<br>7                    | 33.3<br>11.1<br>16.7<br>19.4<br>19.4 | 33.3<br>11.1<br>16.7<br>19.4<br>19.4 | 33.3<br>44.4<br>61.1<br>80.6<br>100.0 |
|   |   | Total  | 36  | 100.0                                | 100.0                                |                                       |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 3.917<br>1.000<br>-1.830<br>.393<br>7.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .419<br>2.511<br>.768<br>6.000<br>141.000 | Skew                                 | an<br>ance<br>ness<br>mum            | 5.000<br>6.307<br>095<br>1.000        |
| Valid cases                                     | 36  | Missing c                                      | ases O                                    |                                      |                                      |                                       |
| <br>Sex   |   |  |   |                                      |                                      |                                       |
| Value Label                                     |   | Value  | Frequency                                 | Percent                              | Valid<br>Percent                     | Cum<br>Percent                        |
|   |   | 1.00<br>2.00                                   | 20<br>1 <b>6</b>                          | 55.6<br>44.4                         | 55.6<br>44.4                         | 55.6<br>100.0                         |
|   |   | Total  | 36  | 100.0                                | 100.0                                |                                       |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 1.444<br>1.000<br>-2.064<br>.393<br>2.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .084<br>.504<br>.768<br>1.000<br>52.000   | Skew                                 | an<br>ance<br>ness<br>mum            | 1.000<br>.254<br>.233<br>1.000        |
| Valid cases                                     | 36  | Missing c                                      | ases O                                    |                                      |                                      |                                       |

AGE

| Value Label |              | Value     | Frequency             | Percent  | Valid<br>Percent | Cum<br>Percent |
|-------------|--------------|-----------|-----------------------|----------|------------------|----------------|
|             |              | 19.00     | 2                     | 5.6      | 6.5              | 6.5            |
|             |              | 20.00     | 1                     | 2.8      | 3.2              | 9.7            |
|             |              | 24.00     | 2                     | 5.6      | 6.5              | 16.1           |
|             |              | 28.00     | 1                     | 2.8      | 3.2              | 19.4           |
|             |              | 29.00     | 1                     | 2.8      | 3.2              | 22.6           |
|             |              | 30.00     | 1                     | 2.8      | 3.2              | 25.8           |
|             |              | 32.00     | 1                     | 2.8      | 3.2              | 29.0           |
|             |              | 33.00     | 3                     | 8.3      | 9.7              | 38.7           |
|             |              | 34.00     | 1<br>1<br>3<br>1      | 2.8      | 3.2              | 41.9           |
|             |              | 37.00     | 1                     | 2.8      | 3.2              | 45.2           |
|             |              | 38.00     | 1                     | 2.8      | 3.2              | 48.4           |
|             |              | 39.00     | 1                     | 2.8      | 3.2              | 51.6           |
|             |              | 42.00     | 1<br>2<br>3<br>3<br>1 | 5.6      | 6.5              | 58.1           |
|             |              | 43.00     | . 3                   | 8.3      | 9.7              | 67.7           |
|             |              | 45.00     | 3                     | 8.3      | 9.7              | 77.4           |
|             |              | 46.00     | 1                     | 2.8      | 3.2              | 80.6           |
|             |              | 47.00     | 3                     | 8.3      | 9.7              | 90.3           |
|             |              | 52.00     | 1                     | 2.8      | 3.2              | 93.5           |
|             |              | 60.00     | · 1                   | 2.8      | 3.2              | 96.8           |
|             |              | 69.00     | 1                     | 2.8      | 3.2              | 100.0          |
|             |              | . •       | 5                     | 13.9     | Missing          | ſ              |
|             |              | Total     | 36                    | 100.0    | 100.0            |                |
| Mean        | 38.323       | Std err   | 2.077                 | Medi     | an               | 39.000         |
| Mode        | 33.000       | Std dev   |                       |          | ance             | 133.692        |
| Kurtosis    | . 488        | S E Kurt  | .821                  |          | mess             | .360           |
| S E Skew    | .421         | Range     | 50.000                | Mini     |                  | 19.000         |
| Maximum     | 69.000       | Sum       | 1188.000              |          |                  |                |
| * Multiple  | modes exist. | The small | .est value i          | s shown. |                  |                |

Valid cases

31

Missing cases

5

146

DENOM

| Value Label |       | Value    | Frequency | Percent | Valid<br>Percent | Cum<br>Percent |
|-------------|-------|----------|-----------|---------|------------------|----------------|
|             |       | 1.00     | 11        | 30.6    | 44.0             | 44.0           |
|             |       | 2.00     |           | 2.8     | 4.0              | 48.0           |
|             |       |          | 1         |         |                  |                |
|             |       | 3.00     | 6         | 16.7    | 24.0             | 72.0           |
|             |       | 4.00     | 2         | 5.6     | 8.0              | 80.0           |
|             |       | 5.00     | 1         | 2.8     | 4.0              | 84.0           |
|             |       | 6.00     | 2         | 5.6     | 8.0              | 92.0           |
|             |       | 7.00     | 1         | 2.8     | 4.0              | 96.0           |
|             |       | 8.00     | 1         | 2.8     | 4.0              | 100.0          |
|             |       |          | 11        | 30.6    | Missing          | 20010          |
|             |       |          |           |         |                  |                |
|             |       | Total    | 36        | 100.0   | 100.0            |                |
| Mean        | 2.840 | Std err  | . 427     | Medi    | an               | 3.000          |
| Mode        | 1.000 | Std dev  | 2.135     | Vari    | ance             | 4.557          |
| Kurtosis    | .090  | S E Kurt | . 902     |         | mess             | 1.009          |
| S E Skew    | .464  | Range    | 7.000     | Mini    |                  | 1.000          |
|             |       | -        |           | PL411   |                  | 1.000          |
| Maximum     | 8.000 | Sum      | 71.000    |         |                  |                |

Valid cases

25 Missing cases

ses 11

## YRSUS

| Value Labe | 1      | Value    | Frequency   | Percent | Valid<br>Percent | Cum<br>Percent |
|------------|--------|----------|-------------|---------|------------------|----------------|
|            |        | 1.00     | 1.          | 2.8     | 2.8              | 2.8            |
|            |        | 1.60     | 1           | 2.8     | 2.8              | 5.6            |
|            |        | 3.00     | 1           | 2.8     | 2.8              | 8.3            |
|            |        | 4.00     | 2           | 5.6     | 5.6              | 13.9           |
|            |        | 5.00     | 1           | 2.8     | 2.8              | 16.7           |
|            |        | 7.00     | 1           | 2.8     | 2.8              | 19.4           |
|            |        | 11.00    | 2           | 5.6     | 5.6              | 25.0           |
|            |        | 12.00    | 2<br>3<br>2 | 8.3     | 8.3              | 33.3           |
|            |        | 15.00    |             | 5.6     | 5.6              | 38.9           |
|            |        | 18.00    | 1           | 2.8     | 2.8              | 41.7           |
|            |        | 19.00    | 1           | 2.8     | 2.8              | 44.4           |
|            |        | 20.00    | 3           | 8.3     | 8.3              | 52.8           |
|            |        | 21.00    | 1           | 2.8     | 2.8              | 55.6           |
|            |        | 22.00    | 1           | 2.8     | 2.8              | 58.3           |
|            |        | 26.00    | 1           | 2.8     | 2.8              | 61.1           |
|            |        | 27.00    | 2           | 5.6     | 5.6              | 66.7           |
|            |        | 30.00    | 1           | 2.8     | 2.8              | 69.4           |
|            |        | 33.00    | 1           | 2.8     | 2.8              | 72.2           |
|            |        | 34.00    | 1           | 2.8     | 2.8              | 7.5 . 0        |
|            |        | 37.00    | 1           | 2.8     | 2.8              | 77.8           |
|            |        | 40.00    | 1           | 2.8     | 2.8              | 80.6           |
|            |        | 42.00    | 1           | 2.8     | 2.8              | 83.3           |
|            |        | 43.00    | 1           | 2.8     | 2.8              | 86.1           |
|            |        | 45.00    | 1           | 2.8     | 2.8              | 88.9           |
|            |        | 46.00    | 1           | 2.8     | 2.8              | 91.7           |
|            |        | 47.00    | 1           | 2.8     | 2.8              | 94.4           |
|            |        | 60.00    | 1           | 2.8     | 2.8              | 97.2           |
|            |        | 67.00    | 1           | 2.8     | 2.8              | 100.0          |
|            |        | Total    | 36          | 100.0   | 100.0            |                |
| Mean       | 23.822 | Std err  | 2.806       | Medi    | an               | 20.000         |
| Mode       | 12.000 | Std dev  | 16.838      | Vari    | ance             | 283.503        |
| Kurtosis   | 056    | S E Kurt | .768        | Skew    | mess             | .713           |
| S E Skew   | .393   | Range    | 66.000      | Mini    | mum              | 1.000          |
| Maximum    | 67.000 | Sum      | 857.600     |         |                  |                |

\* Multiple modes exist. The smallest value is shown.

Valid cases 36

Missing cases

s 0

YRSCHR

| Value Label |              | Value            | Frequency                  | Percent    | Valid<br>Percent | Cum<br>Percent |
|-------------|--------------|------------------|----------------------------|------------|------------------|----------------|
|             |              | 1.60             | 1.                         | 2.8        | 2.9              | 2.9            |
|             |              | 2.00             | 1                          | 2.8        | 2.9              | 5.7            |
|             |              | 3.00             | 1                          | 2.8        | 2.9              | 8.6            |
|             |              | 6.00             | 1                          | 2.8        | 2.9              | 11.4           |
|             |              | 6.50             | 1                          | 2.8        | 2.9              | 14.3           |
|             |              | 8.00             | 1                          | 2.8        | 2.9              | 17.1           |
|             |              | 9.00             | 1<br>3<br>1<br>1<br>2<br>2 | 8.3        | 8.6              | 25.7           |
|             |              | $10.00 \\ 13.00$ | 1                          | 2.8<br>2.8 | 2.9<br>2.9       | 28.6           |
|             |              | 15.00            | 1                          | 2.8        | 5.7              | 31.4<br>37.1   |
|             |              | 17.00            | 2                          | 5.6        | 5.7              | 42.9           |
|             |              | 18.00            | 1                          | 2.8        | 2.9              | 45.7           |
|             |              | 20.00            | 1<br>2                     | 5.6        | 5.7              | 51.4           |
|             |              | 21.00            | 1                          | 2.8        | 2.9              | 54.3           |
|             |              | 23.00            | ī                          | 2.8        | 2.9              | 57.1           |
|             |              | 24.00            | ī                          | 2.8        | 2.9              | 60.0           |
|             |              | 25.00            | 1                          | 2.8        | 2.9              | 62.9           |
|             |              | 30.00            | 1<br>2                     | 5.6        | 5.7              |                |
|             |              | 33.00            | 1                          | 2.8        | 2.9              | 71.4           |
|             |              | 35.00            | 3                          | 8.3        | 8.6              | 80.0           |
|             |              | 37.00            | 1                          | 2.8        | 2.9              | 82.9           |
|             |              | 38.00            | 1                          | 2.8        | 2.9              | 85.7           |
|             |              | 43.00            | 2                          | 5.6        | 5.7              | 91.4           |
|             |              | 44.00            | 1                          | 2.8        | 2.9              | 94.3           |
|             |              | 45.00            | 1                          | 2.8        | 2.9              |                |
|             |              | 69.00            | 1                          | 2.8        | 2.9              |                |
|             |              | •                | 1                          | 2.8        | Missing          | 3              |
|             |              | Total            | 36                         | 100.0      | 100.0            |                |
| Mean        | 23.117       | Std err          | 2.607                      |            | an               | 20.000         |
| Mode        | 9.000        | Std dev          | 15.421                     |            | ance             | 237.816        |
| Kurtosis    | .617         | S E Kurt         | .778                       |            | mess             | .770           |
| S E Skew    | .398         | Range            | 67.400                     | Mini       | mum              | 1.600          |
| Maximum     | 69.000       | Sum              | 809.100                    |            |                  |                |
| * Multiple  | modes exist. | The small        | est value i                | s shown.   |                  |                |

Valid cases

35

Missing cases 1

| Value Label                                     |   | Value  | Frequency                                | Percent  | Valid<br>Percent | Cum<br>Percent                                |
|---|---|--|--|--|------------------|---|
|   |   | 1.00<br>3.00<br>4.00<br>5.00<br>6.00<br>7.00   | 13<br>1<br>4<br>5<br>4<br>2<br>7         | 36.1<br>2.8<br>11.1<br>13.9<br>11.1<br>5.6<br>19.4 | 13.8             | 44.8<br>48.3<br>62.1<br>79.3<br>93.1<br>100.0 |
|   |   | Total  | 36                                       | 100.0  | 100.0            |   |
| Mean<br>Mode<br>Kurtosis<br>S E Skew<br>Maximum | 3.276<br>1.000<br>-1.626<br>.434<br>7.000 | Std err<br>Std dev<br>S E Kurt<br>Range<br>Sum | .418<br>2.250<br>.845<br>6.000<br>95.000 |  | ance<br>mess     | 4.000<br>5.064<br>.195<br>1.000               |
| Valid cases                                     | 29  | Missing c                                      | ases 7                                   | ,  |                  |   |

| Valid cases 29 Missing cases | Valid | cases | 29 | Missing | cases |
|------------------------------|-------|-------|----|---------|-------|
|------------------------------|-------|-------|----|---------|-------|

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Bilinguals:

ACCUL

| Value Label |    | Value H     | Frequency | Percent      | Valid<br>Percent | Cum<br>Percent |
|-------------|----|-------------|-----------|--------------|------------------|----------------|
|             |    | 1           | 9         | 25.0         | 32.1             | 32.1           |
|             |    | 2<br>3      | 12<br>5   | 33.3<br>13.9 | 42.9<br>17.9     | 75.0<br>92.9   |
|             |    | 4           | 2<br>8    | 5.6<br>22.2  | 7.1<br>Missing   | 100.0          |
|             |    | Total       | 36        | 100.0        | 100.0            |                |
| Valid cases | 28 | Missing cas | ses 8     |              |                  |                |

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Appendix D

Consent Form

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¿Puede usted ayudar en un estudio sobre el bienestar espiritual entre los hispanos? Si puede hacerlo, por favor conteste el cuestionario (le tomará unos 20 minutos hacerlo) y firme en esta hoja solamente. Sus respuestas serán confidenciales. Si tiene alguna pregunta, favor de llamar a Kay Bruce al (360) 887-4588.

Firma

Can you help with a study of spiritual well-being among Hispanic people? If so, please fill out the questionnaire (it takes about 10 minutes) and sign your name on this sheet only. Your answers will be confidential. Contact Kay Bruce at (360) 887-4588, if you have questions.

Signature

Appendix E

Demographic Questionnaire

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Sexo: Masculino \_\_\_\_ Femenino \_\_\_\_ Edad: \_\_\_ Denominación: \_\_\_\_ Años de vivir en los Estados Unidos: \_\_\_\_ Años de ser cristiano: \_\_\_\_ Herencia: Mexicano \_\_\_\_ Espanol \_\_\_\_ Puerto Riqueño \_ de Centro America \_\_\_\_\_ de Sur America \_\_\_\_\_ Otro \_\_\_\_\_ Algunas personas hablan Inglés y Español, pero muchos solamente hablan un idioma. ¿Queremos saber cual idioma usted prefiere? \_\_\_\_Inglés \_\_\_\_Español \_\_\_\_Los dos idiomas ígualmente ¿Cuál idioma se habla más frequente en su casa? \_\_\_\_Inglés \_\_\_\_Español \_\_\_\_Los dos idiomas ígualmente ¿Cuál era șu primer idioma en su niñez? \_\_\_\_Inglés \_\_\_\_Español Otro \_\_\_\_\_ Mucha gente tiene dificultad en leér el Inglés y Español. ¿Puede usted leér Inglés? \_\_\_\_algo \_\_\_\_muy poco \_\_\_\_nada \_\_\_\_\_Sí, todo ¿Puede usted leér Español? \_\_\_\_\_Sí, todo \_\_\_\_\_algo \_\_\_\_muy poco \_\_\_\_\_nada

Note. The acculturation scale is from "A Simple Language-based Scale for Mexican Americans: Validation and Application to Health Care Research" by R. A. Deyo, A. K. Diehl, H. Hazuda, and M. P. Stern, 1985, <u>American Journal</u> of Public Health, <u>75</u>, 51-55. Reprinted by permission.

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Sex: Male \_\_\_\_ Female \_\_\_\_ Age: \_\_\_\_ Denomination: \_\_\_\_\_ Years lived in the United States: \_\_\_\_ Years as a Christian: \_\_\_\_ Heritage: Mexican \_\_\_\_ Spanish \_\_\_\_ Puerto Rican \_\_\_\_ from Central America \_\_\_\_\_ from South America \_\_\_\_\_ Other \_\_\_\_\_ Some people speak both English and Spanish, but many speak only one or the other. What language do you prefer to speak? \_\_\_\_ English \_\_\_\_ Spanish \_\_\_\_ both equally What language is most often spoken in your home? \_\_\_\_English \_\_\_\_Spanish \_\_\_\_both equally What was your first language as a child? \_\_\_\_English \_\_\_\_Spanish Other \_\_\_\_\_ Many people have difficulty reading in English and Spanish. Do you read English? \_\_\_\_yes, anything \_\_\_\_\_some \_\_\_\_very little \_\_\_\_\_none Do you read Spanish? \_\_\_\_yes, anything \_\_\_\_\_some \_\_\_\_very little \_\_\_\_\_none Note. The acculturation scale is from "A Simple Language-based Scale for Mexican Americans: Validation and Application to Health Care Research" by R. A. Deyo, A. K. Diehl, H. Hazuda, and M. P. Stern, 1985, American Journal of Public Health, 75, 51-55.

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Appendix F

Back Translation of Translated SWBS Scale

# SPIRTUAL WELL BEING SCALE Translation from Spanish to English by Dr. Jorge Flores

1. I don't find much satisfaction in my private prayer life with God. 2. I don"t know who I am, where I am from or where I'm going. I believe God loves me and that I'm important to him. 3. 4. I believe that life is a positive experience. 5. I believe God. is impersonal and he is not interested in my daily situations. I feel my future is uncertain. 6. 7. I have a personal and significant relationship with God. I feel complete and satisfied with my life. а. I have no personal strength nor encouragement from my. God. 9. 10. I have a sense of well being with the direction my life is going. I believe God is concerned with my problems. 11. 12. I don't enjoy my life very much. 13. I don't have a personal relation with God that satisfies me. I feel good the way my future is going. 14. My relationship with God helps me not to feel alone. 15. I feel that life is full of conflicts and problems. 16. 17. I feel more complete when I'm in fellowship and closer to God. 18. Life is not very significant My relationship with God contributes to my well being. 19. 20. I believe there is a true purpose for my existence.

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Appendix G

Bilingual Version of Revised Scale

#### ESCALA DE BIENESTAR ESPIRITUAL

En cada una de las oraciones, marque con un círculo la opción que mejor indique su acuerdo o desacuerdo con respecto a su experiencia personal:

| <u> </u> | De acuerdo CD - Completamer<br>Ejemplos de preguntas                                  | te i | en ( | ies<br> | ;ac | cue: | do. |
|----------|---|------|------|---------|-----|------|-----|
| a.       | No sé cuántos granos de arena hay en la playa.  | CA   | )ma  | A       | D   | MD   | CD  |
| b.       | Yo sé mi nombre.  | CA   | )ma  | A       | D   | MD   | CD  |
| c.       | No sé cuántos años tengo.   | CA   | МА   | A       | D   | MD   |     |
| 1.       | No encuentro mucha satisfacción al orar<br>en prívado con Dios.                       | CA   | MA   | A       | D   | MD   | CD  |
| 2.       | No sé quién soy, de dónde vine o a dónde voy.   | CA   | ма   | A       | D   | MD   | CD  |
| з.       | Creo que Dios me ama y creo que si le importo.  | CA   | MA   | A       | D   | MD   | CD  |
| 4.       | Creo que la vida es una experiencia positiva.   | CA   | MA   | A       | Ð   | MD   | CD  |
| 5.       | Creo que Dios es impersonal y que no está<br>interesado en mis situaciones diarias.   | CA   | ма   | A       | D   | MD   | CD  |
| 6.       | Siento que mi futuro es incierto.   | CA   | MA   | A       | D   | MD   | CD  |
| 7.       | Tengo una relación personal significativa con Dios.                                   | CA   | ма   | A       | D   | MD   | CD  |
| 8.       | Me siento pleno y satisfecho con la vida.   | CA   | MA   | A       | D   | MD   | CD  |
| 9.       | No obtengo fortaleza personal ni respaldo de mi Dios.                                 | CA   | MA   | A       | D   | MD   | CD  |
| o.       | Tengo una sensación de bienestar con respecto<br>a la dirección en la que va mi vida. | CA   | ма   | A       | D   | MD   | CD  |
| 1.       | Creo que a Dios le preocupan mis problemas.   | CA   | MA   | A       | D   | MD   | CD  |
| 2.       | No disfruto casi nada de la vida.   | CA   | MA   | A       | D   | MD   | CD  |
| з.       | No tengo una relación personal con Dios<br>que me satisfaga.                          | CA   | ма   | A       | D   | MD   | CD  |
| 4.       | Me siento bien con respecto a mi futuro.  | CA   | MA   | A       | D   | MD   | CD  |
| 5.       | Mi relación con Dios me ayuda a no sentirme solo.                                     | CA   | ма   | A       | D   | MD   | CD  |
| 6.       | Siento que la vida está llena de conflictos<br>y infelicidad.                         | CA   | ма   | A       | D   | MD   | CD  |
| 7.       | Me siento más pleno cuando estoy en comunión<br>cercana con Dios.                     | CA   | ма   | A       | D   | мD   | CD  |
| 8.       | La vida no tiene mucho significado.   | CA   | MA   | A       | D   | MD   | CD  |
| 9.       | Mi relación con Dios contribuye a mi sentido de<br>bienestar.                         | CA   | Ma   | A       | D   | MD   | CD  |
| ο.       | Creo que hay un propósito verdadero para mi existencia                                | . са | MA   | A       | D   | MD   | CD  |

Conceptualization and Measurement" by C. W. Ellison, 1983, Journal of Psychology and Theology, 11, p. 340. English SWBS Copyright 1982 and Spanish SWBS Copyright 1994, 1996 by Craig W. Ellison and Raymond F. Paloutzian. All rights reserved. Translation by Kay C. Bruce and Ted Stagner is by courtesy. Not to be duplicated unless express written permission is granted by Craig W. Ellison and Raymond F. Paloutzian. Reprinted by permission.

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Please do not turn this page until you have completed the first page. Once you have completed the first page, please do not refer back to it when working on the second page. It is very important that you work on only one page at a time.

#### SPIRITUAL MELL-BRING SCALE

For each of the following statements <u>circle</u> the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience:

| MA       | - Strongly Agree<br>- Moderately Agree<br>- Agree | D - Disagree<br>MD - Moderately Disagree<br>SD - Strongly Disagree |
|----------|---|--|
| <u> </u> | Sample  | Questions  |

| · `` | ······································                                      | _          |            |          |    |    |
|------|---|------------|------------|----------|----|----|
| a.   | I don't know how many grains of sand are on the beach.                      | œ»         | A /        | D        | MD | SD |
| ь.   | I know my name.   | <b>9</b> * | . ,        | D        | мD | SD |
| c.   | I don't know my age.  | SA M       |            | D        | MD | 9  |
| 1.   | I don't find much satisfaction in private prayer with God.                  | SA H       | х ,        | D        | MD | SD |
| 2.   | I don't know who I am, where I came from, or where I am going.              | SA M       |            | <b>0</b> | MD | SD |
| 3.   | I believe that God loves me and cares about me.                             | SA M       | λ,         | D        | MD | SD |
| 4.   | I feel that life is a positive experience.                                  | SA M       | , x        | D        | MD | SD |
| 5.   | I believe that God is impersonal and not interested in my daily situations. | SA M       |            | D        | MD | SD |
| 6.   | I feel unsettled about my future.   | SA M       |            | D        | MD | SD |
| 7.   | I have a personally meaningful relationship with God.                       | SA M       |            | 0        | MD | SD |
| 8.   | I feel very fulfilled and satisfied with life.                              | SA M       | x          | D        | MD | SD |
| 9.   | I don't get much personal strength and support from my God.                 | SA M       | , ,        | 0        | MD | SD |
| 10.  | I feel a sense of well-being about the direction my life is headed in.      | SA M       | x          | D        | MD | SD |
| 11.  | I believe that God is concerned about my problems.                          | SA M       | A /        | D        | MD | SD |
| 12.  | I don't enjoy much about life.  | SA M       |            | D        | MD | SD |
| 13.  | I don't have a personally satisfying relationship with God.                 | SA M       | , ,        | D        | MD | SD |
| 14.  | I feel good about my future.  | SA M       | X          | D        | MD | SD |
| 15.  | My relationship with God helps me not to feel lonely.                       | SA M       |            | D        | MD | SD |
| 16.  | I feel that life is full of conflict and unhappiness.                       | SA M       |            | D        | MD | SD |
| 17.  | I feel most fulfilled when I'm in close communion with God.                 | SA M       |            | D        | MD | SD |
| 18.  | Life doesn't have much meaning.   | SA M       |            | ۰D       | MD | SD |
| 19.  | My relation with God contributes to my sense of well-being.                 | SA M       | <b>a</b> a | D        | MD | SD |
| 20.  | I believe there is some real purpose for my life.                           | SA M       | <b>X</b> X | D        | MD | SD |

Note. From "Spiritual Well-Being: Conceptualization and Measurement" by C. W. Ellison, 1983, <u>Journal of Psychology and Theology</u>, <u>11</u>, p. 340. SWB Scale Copyright 1982 by Craig W. Ellison and Raymond P. Paloutzian. All rights reserved. Not to be duplicated unless express written permission is granted by the authors or by Life Advance, Inc., 81 Front St., Nyack, NY 10960. Reprinted by permission. Items are scored from 1 to 6, with a higher number representing more well-being. Reverse scoring for negatively worded items. Odd-numbered items assess religious well-being; even numbered items assess existential well-being.

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Appendix H

Raw Data

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## Explanation of Raw Data

- Column 01: Identification Number
- Column 02: Group
- Column 03: Gender
- Column 04: Age in Years
- Column 05: Denomination
- Column 06: Number of Years Lived in United States
- Column 07: Number of Years as a Christian
- Column 08: Heritage
- Column 09: Preferred Language
- Column 10: Language Spoken in Home
- Column 11: First Language as a Child
- Column 12: Ability to Read English
- Column 13: Ability to Read Spanish
- Columns 14-34: Spanish SWBS

Spanish SWBS

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# Appendix I

Correlations of Demographics and Scales for Total Sample

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#### - - Correlation Coefficients - -

|     | SEX     | AGE     | YRSCHR  | YRSUS   | DENOM         | HERIT   |
|-----|---------|---------|---------|---------|---------------|---------|
| SWB | 1011    | .1682   | .1371   | .2054   | .2137         | .1703   |
|     | ( 110)  | ( 101)  | ( 104)  | ( 108)  | ( 75)         | ( 104)  |
|     | P= .293 | P= .093 | P= .165 | P= .033 | P= .066       | P= .084 |
| RWB | 0752    | .1304   | .0623   | .2099   | .20 <b>73</b> | .1130   |
|     | ( 110)  | ( 101)  | ( 104)  | ( 108)  | (75)          | ( 104)  |
|     | P=.435  | P= .194 | P= .530 | P= .029 | P=.074        | P= .254 |
| EWB | 1074    | .1747   | .1750   | .1757   | .1911         | .1930   |
|     | ( 110)  | ( 101)  | ( 104)  | ( 108)  | ( 75)         | ( 104)  |
|     | P= .264 | P= .081 | P= .076 | P= .069 | P= .100       | P= .050 |

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

|     | PREFLAN | SPKHSE  | SPKCHLD | RDENG   | RDSPAN  |
|-----|---------|---------|---------|---------|---------|
| SWB | .0407   | 1004    | 1065    | 2381    | 0945    |
|     | ( 101)  | ( 104)  | ( 104)  | ( 101)  | ( 104)  |
|     | P= .686 | P= .310 | P= .282 | P= .017 | P= .340 |
| RWB | 0229    | 1624    | 1400    | 2300    | 1495    |
|     | ( 101)  | ( 104)  | ( 104)  | ( 101)  | ( 104)  |
|     | P= .820 | P= .100 | P= .156 | P= .021 | P= .130 |
| EWB | .0852   | 0371    | 0651    | 2117    | 0374    |
|     | ( 101)  | ( 104)  | ( 104)  | ( 101)  | ( 104)  |
|     | P= .397 | P= .709 | P= .511 | P= .034 | P= .706 |

(Coefficient / (Cases) / 2-tailed Significance)

". " is printed if a coefficient cannot be computed

|       |         | - COLLC | TACION COST | TTCTCHC2 |
|-------|---------|---------|-------------|----------|
|       | RWB     | EWB     | SWB         | ACCUL    |
| RWB   | 1.0000  | .7124   | .9023       | .0450    |
|       | ( 111)  | ( 111)  | ( 111)      | (96)     |
|       | P= .    | P= .000 | P= .000     | P=.663   |
| EWB   | .7124   | 1.0000  | .9454       | .0946    |
|       | ( 111)  | ( 111)  | ( 111)      | (96)     |
|       | P= .000 | P= .    | P= .000     | P=.359   |
| SWB   | .9023   | .9454.  | 1.0000      | .0792    |
|       | ( 111)  | ( 111)  | ( 111)      | (96)     |
|       | P= .000 | P= .000 | P= .        | P=.443   |
| ACCUL | .0450   | .0946   | .0792       | 1.0000   |
|       | ( 96)   | (96)    | (96)        | ( 96)    |
|       | P= .663 | P=.359  | P=.443      | P= .     |

(Coefficient / (Cases) / 2-tailed Significance)
" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

| R | E | L | Ι | А | в | Ι | L | Ι | т | Y | A | N | Α | L | Y | S | I | S | - | S | С | A | L | Е | ( | s | W | B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |

Item-total Statistics

|  | Scale<br>Mean<br>if Item<br>Deleted  | Scale<br>Variance<br>if Item<br>Deleted  | Corrected<br>Item-<br>Total<br>Correlation  | Alpha<br>if Item<br>Deleted   |
|--|--|--|---|---|
| Q1<br>Q2<br>Q3<br>Q4<br>Q5<br>Q6<br>Q7<br>Q8<br>Q9<br>Q10<br>Q11<br>Q12<br>Q11<br>Q12<br>Q13<br>Q14<br>Q15<br>Q16<br>Q17<br>Q18<br>Q19 | 101.2793<br>100.8649<br>100.3514<br>100.5586<br>101.5405<br>100.7477<br>101.0270<br>100.6486<br>101.0631<br>100.9640<br>100.9820<br>101.1261<br>100.6126<br>102.1802<br>100.5135<br>100.8649<br>100.6126 | 130.1304<br>130.7543<br>139.5027<br>134.1962<br>137.6670<br>128.7415<br>131.8631<br>130.6811<br>128.9027<br>130.6960<br>134.5240<br>124.5260<br>127.0157<br>134.7849<br>124.9127<br>135.2339<br>127.1179<br>133.7486 | .2868<br>.3566<br>.2853<br>.4531<br>.3013<br>.2967<br>.5019<br>.4657<br>.5846<br>.4122<br>.4967<br>.6179<br>.4741<br>.5099<br>.3223<br>.4406<br>.3638<br>.5185<br>.3864 | .8359<br>.8294<br>.8317<br>.8257<br>.8309<br>.8366<br>.8233<br>.8233<br>.8193<br>.8193<br>.8263<br>.8251<br>.8157<br>.8231<br>.8251<br>.8213<br>.8213<br>.8213<br>.8258<br>.8286<br>.8286<br>.8209<br>.8275 |
| Q20  | 100.5495   | 133.8316   | .3982   | .8271   |

Reliability Coefficients

N of Cases = 111.0

N of Items = 20

## RELIABILITY ANALYSIS - SCALE (RWB)

Item-total Statistics

|     | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-----|-------------------------------------|---|--|-----------------------------|
| Q1  | 50.2072                             | 24.8930                                 | .1942                                      | .7146                       |
| Q3  | 49.2793                             | 29.4031                                 | .1886                                      | .6815                       |
| Q5  | 49.4865                             | 27.7248                                 | .3097                                      | .6660                       |
| Q7  | 49.6757                             | 25.6029                                 | .4544                                      | .6406                       |
| Q9  | 49.5766                             | 24.2100                                 | .5489                                      | .6204                       |
| Q11 | 49.3964                             | 26.9142                                 | .4386                                      | .6493                       |
| Q13 | 49.9099                             | 23.6464                                 | .3947                                      | .6502                       |
| Q15 | 49.5405                             | 26.1233                                 | .3370                                      | .6603                       |
| Q17 | 49.4414                             | 26.5215                                 | .3750                                      | .6546                       |
| Q19 | 49.5405                             | 25.9415                                 | .3817                                      | .6523                       |

Reliability Coefficients

N of Cases = 111.0 N of Items = 10

Alpha = .6827

RELIABILITY ANALYSIS - SCALE (EWB)

Item-total Statistics

|     | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-----|-------------------------------------|---|--|-----------------------------|
| Q2  | 45.7477                             | 46.4631                                 | .3125                                      | .7374                       |
| Q4  | 45.5225                             | 47.8518                                 | .4773                                      | .7202                       |
| Q6  | 46.4234                             | 43.3736                                 | .3264                                      | .7435                       |
| Q8  | 45.9099                             | 46.4100                                 | .4295                                      | .7208                       |
| Q10 | 45.9459                             | 46.2516                                 | .3831                                      | .7263                       |
| Q12 | 45.8468                             | 42.6945                                 | .5893                                      | .6958                       |
| Q14 | 46.0090                             | 44.0090                                 | .4950                                      | .7098                       |
| õ16 | 47.0631                             | 42.0596                                 | .4407                                      | .7189                       |
| Q18 | 45.7477                             | 44.9176                                 | . 4425                                     | .7177                       |
| Q20 | 45.4324                             | 49.5568                                 | .2698                                      | .7400                       |

Reliability Coefficients

N of Cases = 111.0

N of Items = 10

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Appendix J

Correlations of Demographics and Scales

for Test-Retest Subsample

## - - Correlation Coefficients - -

|      | SEX     | AGE     | DENOM   | YRSUS  | YRSCHR  | HERIT   |
|------|---------|---------|---------|--------|---------|---------|
| RWBS | .2575   | 1190    | 1847    | .3357  | 2725    | 0424    |
|      | ( 21)   | ( 21)   | ( 15)   | (22)   | ( 21)   | (22)    |
|      | P= .260 | P= .608 | P= .510 | P=.127 | P= .232 | P=.852  |
| EWBS | .2519   | .0734   | 0612    | .2834  | .0962   | .2464   |
|      | ( 21)   | (21)    | ( 15)   | (22)   | ( 21)   | (22)    |
|      | P= .271 | P=.752  | P= .828 | P=.201 | P= .678 | P=.269  |
| SWBS | .2744   | 0236    | 1252    | .3319  | 0925    | .1093   |
|      | (21)    | ( 21)   | ( 15)   | (22)   | ( 21)   | ( 22)   |
|      | P=.229  | P= .919 | P= .657 | P=.131 | P= .690 | P= .628 |

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

|      | RDENG                    | RDS PAN         | PREFLAN       | SPKHSE                   | SPKCHLD                 |
|------|--------------------------|-----------------|---------------|--------------------------|-------------------------|
| RWBS | 1857<br>( 22)<br>P= .408 | ( 22)<br>P= .   | ( 22)<br>P= . | 1940<br>( 22)<br>P= .387 | .2691<br>(22)<br>P=226  |
| EWBS | .1745<br>(22)<br>P=.437  | ( 22) ·<br>P= . | ( 22)<br>P= . | 1450<br>( 22)<br>P= .520 | .1994<br>(22)<br>P=.374 |
| SWBS | 0061<br>( 22)<br>P= .979 | ( 22)<br>P= .   | ( 22)<br>P= . | 1817<br>( 22)<br>P= .418 | .2512<br>(22)<br>P=.259 |

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

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|       |                           | <br>Correlation | Coefficients |  |
|-------|---------------------------|-----------------|--------------|--|
|       | ACCUL                     |                 |              |  |
| RWBS  | 0762<br>( 22)<br>P= .736  |                 |              |  |
| EWBS  | .0334<br>(22)<br>P=.883   |                 |              |  |
| SWBS  | 0230<br>( 22)<br>P= .919  |                 |              |  |
| RWBX2 | .0620<br>( 22)<br>P= .784 |                 |              |  |
| EWBX2 | .1824<br>( 22)<br>P= .416 |                 |              |  |
| SWBX2 | .1294<br>( 22)<br>P= .566 |                 | 、 ·          |  |

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

RELIABILITY ANALYSIS - SCALE (SWBS)

Item-total Statistics

|     | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-----|-------------------------------------|---|--|-----------------------------|
| Q1  | 99.2273                             | 162.1840                                | .5605                                      | .8564                       |
| Q2  | 99.0455                             | 170.1407                                | .3640                                      | .8628                       |
| Q3  | 98.8182                             | 170.2511                                | .5040                                      | .8611                       |
| Q4  | 99.1364                             | 167.7424                                | .4429                                      | .8607                       |
| Q5  | 99.0455                             | 166.5216                                | .5440                                      | .8586                       |
| Q6  | 99.9545                             | 160.9978                                | .3199                                      | .8679                       |
| Q7  | 99.2273                             | 159.3268                                | .7933                                      | .8510                       |
| Q8  | 99.3636                             | 164.4329                                | .5122                                      | .8583                       |
| Q9  | 99.1364                             | 157.4567                                | .6305                                      | .8531                       |
| Q10 | 99.7727                             | 160.3745                                | .4552                                      | .8596                       |
| Q11 | 99.090 <b>9</b>                     | 163.8009                                | .6285                                      | .8560                       |
| Q12 | 99.4545                             | 160.6407                                | .4176                                      | .8614                       |
| Q13 | 99.5909                             | 156.6342                                | .5342                                      | .8563                       |
| Q14 | 99.8182                             | 159.5844                                | .4132                                      | .8620                       |
| Q15 | 99.5909                             | 162.8247                                | .3292                                      | .8657                       |
| Q16 | 100.6364                            | 160.2424                                | .3006                                      | .8705                       |
| Q17 | 99.2727                             | 160.3983                                | .5146                                      | .8573                       |
| Q18 | 99.1364                             | 161.0758                                | .7090                                      | .8532                       |
| Q19 | 99.3182                             | 158.4177                                | .5838                                      | .8547                       |
| Q20 | 99.4545                             | 158.7359                                | .4358                                      | .8610                       |

Reliability Coefficients

N of Cases = 22.0

Alpha = .8655

N of Items = 20

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## RELIABILITY ANALYSIS - SCALE (RWBS)

Item-total Statistics

|             | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------------|-------------------------------------|---|--|-----------------------------|
| Q1          | 48.6364                             | 43.5758                                 | . 4742                                     | .8218                       |
| Q3          | 48.2273                             | 46.6602                                 | .5320                                      | .8234                       |
| Q5          | 48.4545                             | 45.4978                                 | .4795                                      | .8228                       |
| Q7          | 48.6364                             | 41.6710                                 | .7495                                      | .8002                       |
| <b>ល្</b> ទ | 48.5455                             | 41.6883                                 | .5119                                      | .8186                       |
| Q11         | 48.5000                             | 42.6429                                 | .7055                                      | .8053                       |
| Q13         | 49.0000                             | 39.5238                                 | . 5229                                     | .8200                       |
| 015         | 49.0000                             | 40.4762                                 | . 4228                                     | .8351                       |
| 017         | 48.6818                             | 41.0844                                 | . 5359                                     | .8161                       |
| Q19         | 48.7273                             | 40.3030                                 | . 5939                                     | .8097                       |

Reliability Coefficients

N of Cases = 22.0 N of Items = 10 Alpha = .8326

## RELIABILITY ANALYSIS - SCALE (EWBS)

#### Item-total Statistics

|     | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-----|-------------------------------------|---|--|-----------------------------|
| Q2  | 45.0000                             | 48.0000                                 | .2330                                      | .6981                       |
| Q4  | 45.0909                             | 45.0390                                 | .4708                                      | .6726                       |
| Q6  | 45.9091                             | 40.2771                                 | .3519                                      | .6846                       |
| Q8  | 45.3182                             | 44.2273                                 | .4588                                      | .6702                       |
| Q10 | 45.7273                             | 41.5411                                 | .4314                                      | .6668                       |
| Q12 | 45.4091                             | 39.5866                                 | .5122                                      | .6506                       |
| 014 | 45.7727                             | 43.1364                                 | .2742                                      | .6970                       |
| Q16 | 46.5909                             | 40.4437                                 | .2952                                      | .7013                       |
| 018 | 45.0909                             | 42.8485                                 | .6296                                      | .6519                       |
| Q20 | 45.4091                             | 43.3961                                 | .2607                                      | . 6996                      |

## Reliability Coefficients

| N of Cases | =     | 22.0 | N | of | Items | - | 10 |
|------------|-------|------|---|----|-------|---|----|
| Alpha =    | .7021 |      |   |    |       |   |    |

## RELIABILITY ANALYSIS - SCALE (SWBX2)

Item-total Statistics

|       | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------|-------------------------------------|---|--|-----------------------------|
| Q1X2  | 102.3636                            | 165.9567                                | .5922                                      | .9058                       |
| Q2X2  | 102.3182                            | 168.7035                                | .6241                                      | .9047                       |
| Q3X2  | 102.0455                            | 174.0455                                | .6555                                      | .9052                       |
| Q4X2  | 102.1364                            | 173.8377                                | .6522                                      | .9051                       |
| Q5X2  | 102.0909                            | 171.2294                                | . 6490                                     | .9045                       |
| Q6X2  | 102.7273                            | 164.5887                                | .7307                                      | .9018                       |
| Q7X2  | 102.3182                            | 172.2273                                | .4509                                      | .9096                       |
| Q8X2  | 102.2727                            | 172.8745                                | .6935                                      | .9043                       |
| Q9X2  | 102.4545                            | 164.3550                                | .6284                                      | .9047                       |
| Q10X2 | 102.5455                            | 174.3550                                | .4006                                      | .9108                       |
| Q11X2 | 102.0455                            | 174.5216                                | .7515                                      | .9044                       |
| Q12X2 | 102.5000                            | 164.3571                                | .7678                                      | .9009                       |
| Q13X2 | 102.3636                            | 166.5281                                | .7313                                      | .9021                       |
| Q14X2 | 102.2273                            | 173.5173                                | .7146                                      | .9043                       |
| Q15X2 | 102.1818                            | 173.6797                                | .5191                                      | .9074                       |
| Q16X2 | 103.7727                            | 176.5649                                | .1617                                      | .9273                       |
| Q17X2 | 102.0455                            | 176.2359                                | .6577                                      | .9059                       |
| Q18X2 | 102.1364                            | 176.9805                                | .5494                                      | .9072                       |
| Q19X2 | 102.2727                            | 172.3030                                | .4810                                      | .9085                       |
| Q20X2 | 102.0000                            | 175.2381                                | .7271                                      | .9049                       |

Reliability Coefficients N of Cases = 22.0 Alpha = .9108

N of Items = 20

## RELIABILITY ANALYSIS - SCALE (RWBX2)

Item-total Statistics

|       | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------|-------------------------------------|---|--|-----------------------------|
| Q1X2  | 49.7273                             | 42.6840                                 | .6471                                      | .8525                       |
| Q3X2  | 49.4091                             | 49.6818                                 | .5144                                      | .8625                       |
| Q5X2  | 49.4545                             | 46.7359                                 | .6369                                      | .8532                       |
| Q7X2  | 49.6818                             | 45.6558                                 | .5210                                      | .8635                       |
| Q9X2  | 49.8182                             | 40.5368                                 | .7693                                      | .8398                       |
| 011X2 | 49.4091                             | 49.3961                                 | .6514                                      | .8567                       |
| 013X2 | 49.7273                             | 44.8745                                 | .6771                                      | .8491                       |
| 015x2 | 49.5455                             | 49.3074                                 | .4072                                      | .8700                       |
| 017X2 | 49.4091                             | 49.5866                                 | .6313                                      | .8577                       |
| Q19X2 | 49.6364                             | 45.5758                                 | .5685                                      | .8585                       |

Reliability Coefficients

N of Cases = 22.0 N of Items = 10

Alpha = .8692

## RELIABILITY ANALYSIS - SCALE (EWBX2)

Item-total Statistics

|       | Scal <b>e</b><br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------|---|---|--|-----------------------------|
| Q2X2  | 47.2273                                     | 42.9459                                 | .4917                                      | .8156                       |
| Q4X2  | 47.0455                                     | 44.0455                                 | .6335                                      | .8063                       |
| Q6X2  | 47.6364                                     | 38.4329                                 | .7840                                      | .7830                       |
| Q8X2  | 47.1818                                     | 43.3939                                 | .6925                                      | .8017                       |
| Q10X2 | 47.4545                                     | 43.4026                                 | . 4202                                     | .8237                       |
| Q12X2 | 47.4091                                     | 40.7294                                 | .6442                                      | .7995                       |
| Q14X2 | 47.1364                                     | 43.5519                                 | .7335                                      | .8004                       |
| 016X2 | 48.6818                                     | 40.5130                                 | .2889                                      | .8706                       |
| 018X2 | 47.0455                                     | 46.8074                                 | .4144                                      | .8228                       |
| Q20X2 | 46.9091                                     | 45.0390                                 | .6813                                      | .8074                       |

Reliability Coefficients N of Cases = 22.0

N of Items = 10

|       |                           | Corre | lation Coef | ficients -                | -                         |                           |
|-------|---------------------------|-------|-------------|---------------------------|---------------------------|---------------------------|
|       | RWBS                      | EWBS  | SWBS        | RWBX2                     | EWBX2                     | SWBX2                     |
| RWBS  | 1.0000<br>( 22)<br>P= .   |       | ( 22)       | .6521<br>( 22)<br>P= .001 | .6590<br>( 22)<br>₽≕ .001 | .7015<br>( 22)<br>P= .000 |
| EWBS  | .7401<br>( 22)<br>P= .000 | ( 22) |             | ( 22)                     |                           | .6078<br>(22)<br>P=.003   |
| SWBS  |                           |       |             |                           | .6882<br>( 22)<br>P= .000 | .7019<br>( 22)<br>P= .000 |
| RWBX2 | ( 22)                     | ( 22) | ( 22)       |                           | .7462<br>( 22)<br>P= .000 | .9372<br>( 22)<br>P= .000 |
| EWBX2 | .6590<br>( 22)<br>P= .001 | ( 22) |             | .7462<br>(22)<br>P=.000   |                           | .9315<br>( 22)<br>P= .000 |
| SWBX2 | .7015<br>( 22)<br>P= .000 | ( 22) | ( 22)       | .9372<br>( 22)<br>P= .000 | ( 22)                     | 1.0000<br>( 22)<br>P= .   |

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(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

## Appendix K

Correlations of Demographics and Scales for Bilingual Subsample

|      |         | Corre   | lation Coef | ficients - | -       |         |
|------|---------|---------|-------------|------------|---------|---------|
|      | SEX     | AGE     | HERIT       | YRSUS      | YRSCHR  | ACCUL   |
| RWBS | 1044    | .2869   | .1802       | .1465      | .2920   | .2934   |
|      | ( 36)   | ( 31)   | ( 29)       | ( 36)      | (35)    | (36)    |
|      | P= .545 | P= .118 | P= .350     | P= .394    | P=.089  | P=.082  |
| EWBS | 1156    | .3134   | .1647       | .1326      | .3303   | .2908   |
|      | ( 36)   | ( 31)   | ( 29)       | ( 36)      | (35)    | (36)    |
|      | P= .502 | P= .086 | P= .393     | P= .441    | P=.053  | P=.085  |
| SWBS | 1179    | .3221   | .1883       | .1448      | .3344   | .3075   |
|      | ( 36)   | ( 31)   | ( 29)       | ( 36)      | (35)    | ( 36)   |
|      | P= .494 | P= .077 | P= .328     | P= .400    | P= .050 | P= .068 |
| RWBE | 0599    | .3366   | .2537       | .1922      | .3663   | .3226   |
|      | ( 36)   | ( 31)   | (29)        | ( 36)      | (35)    | (36)    |
|      | ₽≖.728  | ₽= .064 | P=.184      | P= .262    | P=.030  | P=.055  |
| EWBE | 1269    | .3791   | .1920       | .1134      | .2701   | .1973   |
|      | ( 36)   | ( 31)   | ( 29)       | ( 36)      | ( 35)   | ( 36)   |
|      | P= .461 | P= .035 | P= .318     | P= .510    | P= .117 | P= .249 |
| SWBE | 1042    | .3757   | .2280       | .1493      | .3186   | .2549   |
|      | ( 36)   | ( 31)   | ( 29)       | ( 36)      | (35)    | ( 36)   |
|      | P≖ .545 | P= .037 | P= .234     | P= .385    | P=.062  | P= .133 |

- - Correlation Coefficients - -

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

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|      | PREFLAN                  | SPKHSE                    | SPKCHLD                   | RDENG         | RDSPAN                    |
|------|--------------------------|---------------------------|---------------------------|---------------|---------------------------|
| RWBS | 0921<br>( 28)<br>P= .641 | .0405<br>( 29)<br>P= .835 | .1761<br>( 29)<br>P= .361 | ( 29)<br>P=   | .1224<br>( 29)<br>P= .527 |
| EWBS | 1116<br>( 28)<br>P= .572 | .0932<br>( 29)<br>₽≖ .631 | .0740<br>(29)<br>P=.703   | ( 29)<br>P=   | .1796<br>( 29)<br>P= .351 |
| SWBS | 1160<br>( 28)<br>P= .557 | .0824<br>( 29)<br>P= .671 | .1220<br>( 29)<br>P= .528 | ( 29)<br>P= . | .1762<br>( 29)<br>P= .361 |

(Coefficient / (Cases) / 2-tailed Significance)

". " is printed if a coefficient cannot be computed - - Correlation Coefficients - -

|      | PREFLAN                         | SPKHSE                    | SPKCHLD                     | RDENG       | RDSPAN                    |
|------|---------------------------------|---------------------------|-----------------------------|-------------|---------------------------|
| RWBE | .1513                           | .1928                     | .2822                       |             | .1008                     |
|      | ( 28)                           | ( 29)                     | ( 29)                       | ( 29)       | ( 29)                     |
|      | P= .442                         | P= .316                   | P= .138                     | P= .        | P= .603                   |
| EWBE | 03 <b>45</b><br>( 28)<br>₽≖.862 | .0913<br>( 29)<br>P= .638 | .0801<br>( 29)<br>• P= .680 | ( 29)<br>P= | .1516<br>( 29)<br>P= .433 |
| SWBE | .0437                           | .1394                     | .1707                       |             | .1373                     |
|      | (28)                            | ( 29)                     | ( 29)                       | ( 29)       | (29)                      |
|      | P=.825                          | P= .471                   | P= .376                     | P= .        | P=.477                    |

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

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t-tests for independent samples of ORDER

| .742 |  |
|------|--|
|      |  |

Mean Difference = .3333

Levene's Test for Equality of Variances: F= .594 P= .446

| t-tes            | t for Equ | ality o     | f Means      |                | 95%                                |
|------------------|-----------|-------------|--------------|----------------|------------------------------------|
| Variances        | t-value   | df          | 2-Tail Sig   | SE of Diff     | CI for Diff                        |
| Equal<br>Unequal | .25       | 34<br>29.84 | .803<br>.803 | 1.325<br>1.325 | (-2.361, 3.028)<br>(-2.374, 3.041) |

|   | Varia | able | Number<br>of Case |         | SD    | SE of Mean |
|---|-------|------|-------------------|---------|-------|------------|
|   | EWBS  |      |                   |         |       |            |
| 0 | RDER  | 1    | 18                | 53.6667 | 5.053 | 1.191      |
| 0 | RDER  | 2    | 18                | 53.2778 | 9.706 | 2.288      |

#### Mean Difference = .3889

Levene's Test for Equality of Variances: F= 3.599 P= .066

| t-tes<br>Variances | t for Equ<br>t-value |       | of Means<br>2-Tail Sig | SE of Diff | 95%<br>CI for Diff |
|--------------------|----------------------|-------|------------------------|------------|--------------------|
| Equal              | .15                  | 34    | .881                   | 2.579      | (-4.854, 5.632)    |
| Unequal            | .15                  | 25.58 | .881                   | 2.579      | (-4.914, 5.692)    |

## t-tests for independent samples of ORDER

| Vari  | abl <b>e</b> | Number<br>of Case <b>s</b> | Mean     | SD     | SE of Mean |
|-------|--------------|----------------------------|----------|--------|------------|
| SWBS  |              |                            |          |        | <u></u>    |
| ORDER | -            | 18                         | 111.2222 | 7.519  | 1.772      |
| ORDER |              | 18                         | 110.5000 | 13.798 | 3.252      |

Mean Difference = .7222

Levene's Test for Equality of Variances: F= 2.662 P= .112

| t-test for Equality of Means |            |             |              |                | 95%                                |
|------------------------------|------------|-------------|--------------|----------------|------------------------------------|
| Variances                    | t-value    | df          | 2-Tail Sig   | SE of Diff     | CI for Diff                        |
| Equal<br>Unequal             | .19<br>.19 | 34<br>26.28 | .847<br>.847 | 3.704<br>3.704 | (-6.806, 8.251)<br>(-6.893, 8.337) |

| Variable           | Number<br>of Cases | Mean               | SD             | SE of Mean    |
|--------------------|--------------------|--------------------|----------------|---------------|
| RWBE               |                    |                    |                |               |
| ORDER 1<br>ORDER 2 | 18<br>18           | 57.8333<br>56.4444 | 3.808<br>5.893 | .898<br>1.389 |

## Mean Difference = 1.3889

Levene's Test for Equality of Variances: F= 1.826 P= .186

| t-test for Equality of Means |         |       |            |            | 95%             |
|------------------------------|---------|-------|------------|------------|-----------------|
| Varianc <b>es</b>            | t-value | df    | 2-Tail Sig | SE of Diff | CI for Diff     |
| Equal                        | .84     | 34    | . 407      | 1.654      | (-1.973, 4.751) |
| Unequal                      | .84     | 29.09 | .408       | 1.654      | (-1.994, 4.772) |

## t-tests for independent samples of ORDER

| Varia | ble | Number<br>of Cases | Mean    | SD    | SE of Mean |
|-------|-----|--------------------|---------|-------|------------|
| EWBE  |     |                    |         |       |            |
| ORDER | 1   | 18                 | 55.3889 | 4.354 | 1.026      |
| ORDER | 2   | 18                 | 52.8889 | 9.982 | 2.353      |

Mean Difference = 2.5000

Levene's Test for Equality of Variances: F= 5.560 P= .024

| t-test for Equality of Means |            |             |              |                | 95%                                |
|------------------------------|------------|-------------|--------------|----------------|------------------------------------|
| Variances                    | t-value    | df          | 2-Tail Sig   | SE of Diff     | CI for Diff                        |
| Equal<br>Unequal             | .97<br>.97 | 34<br>23.24 | .337<br>.340 | 2.567<br>2.567 | (-2.718, 7.718)<br>(-2.811, 7.811) |

| Variable           | Number<br>of Cases | Mean                 | SD              | SE of Mean     |
|--------------------|--------------------|----------------------|-----------------|----------------|
| SWBE               |                    |                      |                 |                |
| ORDER 1<br>ORDER 2 | 18<br>18           | 113.2222<br>109.3333 | 7.727<br>15.462 | 1.821<br>3.644 |

Mean Difference = 3.8889

Levene's Test for Equality of Variances: F= 4.233 P= .047

| t-test for Equality of Means |         |       |            |            | 95%              |
|------------------------------|---------|-------|------------|------------|------------------|
| Variances                    | t-value | df    | 2-Tail Sig | SE of Diff | CI for Diff      |
| Equal                        | .95     | 34    | .347       | 4.074      | (-4.393, 12.170) |
| Unequal                      | .95     | 24.99 | .349       | 4.074      | (-4.504, 12.282) |

## RELIABILITY ANALYSIS - SCALE (SWBS)

Item-total Statistics

|             | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------------|-------------------------------------|---|--|-----------------------------|
| Q1S         | 105.6944                            | 105.1897                                | .4095                                      | .8748                       |
| Q2S         | 105.2778                            | 107.0635                                | .4525                                      | .8705                       |
| Q35         | 104.9167                            | 118.4786                                | .2034                                      | .8759                       |
| Q45         | 105.3611                            | 106.9230                                | .6298                                      | .8642                       |
| Q5S         | 104.9722                            | 118.9421                                | .0896                                      | .8776                       |
| Q6 <b>S</b> | 105.9444                            | 103.5397                                | .3898                                      | .8788                       |
| Q75         | 105.3611                            | 107.9516                                | .5015                                      | .8682                       |
| Q85         | 105.7222                            | 100.4921                                | .7216                                      | .8589                       |
| Q95         | 105.0000                            | 114.5143                                | .5097                                      | .8709                       |
| Q10S        | 105.3889                            | 105.8444                                | .7154                                      | .8616                       |
| Q11S        | 104.9444                            | 114.5683                                | .6799                                      | .8700                       |
| Q12S        | 105.3889                            | 102.1873                                | .7638                                      | .8582                       |
| Q135        | 105.3333                            | 110.2857                                | .4041                                      | .8716                       |
| Q145        | 105.5000                            | 103.9714                                | .6142                                      | .8637                       |
| Q15S        | 105.0278                            | 112.3135                                | .5714                                      | .8685                       |
| Q16S        | 106.2222                            | 102.5778                                | .5118                                      | .8694                       |
| Q17S        | 104.9722                            | 113.3992                                | .7670                                      | .8683                       |
| Q185        | 105.3056                            | 107.1325                                | .4384                                      | .8713                       |
| Q195        | 105.0000                            | 113.6571                                | .5942                                      | .8695                       |
| Q205        | 105.0278                            | 112.4278                                | . 5623                                     | .8687                       |

Reliability Coefficients

N of Cases = 36.0 Alpha = .8749

N of Items = 20

## RELIABILITY ANALYSIS - SCALE (RWBS)

#### Item-total Statistics

|             | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------------|-------------------------------------|---|--|-----------------------------|
| QIS         | 52.2222                             | 10.2349                                 | .3012                                      | .7251                       |
| Q35         | 51.4444                             | 14.8825                                 | .1531                                      | .6878                       |
| Q5S         | 51.5000                             | 14.9429                                 | .0636                                      | . 6974                      |
| Q75         | 51.8889                             | 10.7873                                 | . 5027                                     | .6264                       |
| Q9 <b>S</b> | 51.5278                             | 13.2278                                 | .5425                                      | .6438                       |
| Q11S        | 51.4722                             | 13.4563                                 | .6642                                      | .6435                       |
| Q135        | 51.8611                             | 12.0087                                 | .3260                                      | .6717                       |
| Q155        | 51.5556                             | 13.0540                                 | .4455                                      | . 6490                      |
| Q175        | 51.5000                             | 13.2286                                 | .6901                                      | .6371                       |
| Q195        | 51.5278                             | 13.1706                                 | .5598                                      | .6417                       |

## Reliability Coefficients

N of Cases = 36.0

N of Items = 10

## RELIABILITY ANALYSIS - SCALE (EWBS)

Item-total Statistics

|             | Scale<br>Mean<br>if Item<br>Deleted | Scale<br>Variance<br>if Item<br>Deleted | Corrected<br>Item-<br>Total<br>Correlation | Alpha<br>if Item<br>Deleted |
|-------------|-------------------------------------|---|--|-----------------------------|
| Q25         | 47.8889                             | 50.1016                                 | .3792                                      | .8360                       |
| Q4S         | 47.9722                             | 48.7706                                 | .6499                                      | .8138                       |
| Q6S         | 48.5556                             | 46.5968                                 | .3705                                      | .8487                       |
| Q8 <b>5</b> | 48.3333                             | 44.5714                                 | .7261                                      | .8012                       |
| Q105        | 48.0000                             | 48.2857                                 | .7186                                      | .8093                       |
| Q125        | 48.0000                             | 46.1143                                 | .7427                                      | .8028                       |
| Q14S        | 48.1111                             | 46.8444                                 | .6203                                      | .8128                       |
| Q165        | 48.8333                             | 45.8571                                 | .5082                                      | .8257                       |
| Q185        | 47.9167                             | 49.6786                                 | .3938                                      | .8349                       |
| Q20S        | 47.6389                             | 53.1516                                 | .5262                                      | .8285                       |

Reliability Coefficients

N of Cases = 36.0 N of Items = 10

|      | Scale    | Scale    | Corrected   |         |
|------|----------|----------|-------------|---------|
|      | Mean     | Variance | Item-       | Alpha   |
|      | if Item  | if Item  | Total       | if Item |
|      | Deleted  | Deleted  | Correlation | Deleted |
| Q1E  | 105.8611 | 129.2659 | .7180       | .9106   |
| Q2E  | 105.5833 | 139.5071 | .5364       | .9154   |
| Q3E  | 105.2778 | 149.0063 | .0000       | .9208   |
| Q4E  | 105.6944 | 139.1897 | .4819       | .9162   |
| Q5E  | 105.5833 | 135.4500 | .5520       | .9148   |
| Q6E  | 106.1111 | 124.2159 | .6833       | .9126   |
| Q7E  | 105.5833 | 139.1643 | .6418       | .9142   |
| 28E  | 106.0278 | 127.9135 | .7747       | .9091   |
| Q9E  | 105.8611 | 129.7230 | .5151       | .9181   |
| Q10E | 105.8889 | 127.6444 | .7173       | .9106   |
| Q11E | 105.3333 | 146.1714 | .4951       | .9185   |
| Q12E | 105.8056 | 127.3611 | .8621       | .9071   |
| Q13E | 105.6667 | 133.4286 | .7364       | .9110   |
| Q14E | 105.8611 | 129.2087 | .8048       | .9087   |
| Q15E | 105.5000 | 139.0571 | .5908       | .9146   |
| Q16E | 106.6944 | 129.4183 | .4509       | .9224   |
| Q17E | 105.5000 | 139.2857 | .5761       | .9149   |
| Q18E | 105.5556 | 132.9968 | .6940       | .9116   |
| Q19E | 105.4722 | 142.1421 | .4750       | .9167   |
| Q20E | 105.4167 | 140.9929 | .5990       | .9153   |

RELIABILITY ANALYSIS - SCALE (SWBE)

Reliability Coefficients

N of Cases = 36.0

N of Items = 20

## RELIABILITY ANALYSIS - SCALE (RWBE)

Item-total Statistics

|   | Scale<br>Mean<br>if Item<br>Deleted                                       | Scale<br>Variance<br>if Item<br>Deleted                                   | Corrected<br>Item-<br>Total<br>Correlation                  | Alpha<br>if Item<br>Deleted                                 |
|---|---|---|---|---|
| Q1E<br>Q3E<br>Q5E<br>Q7E<br>Q9E<br>Q11E<br>013E | 51.7222<br>51.1389<br>51.4444<br>51.4444<br>51.7222<br>51.1944<br>51.5278 | 16.3778<br>24.4087<br>18.6540<br>20.5968<br>16.2063<br>23.3611<br>18.1421 | .7378<br>.0000<br>.5661<br>.6040<br>.5156<br>.4425<br>.7423 | .7432<br>.8099<br>.7706<br>.7728<br>.7986<br>.7983<br>.7481 |
| Q13E<br>Q15E<br>Q17E<br>Q19E                    | 51.3278<br>51.3611<br>51.3333   | 21.2659<br>21.2659<br>21.8286   | . 7423<br>. 4267<br>. 4267<br>. 4171                        | .7481<br>.7878<br>.7878<br>.7898                            |

Reliability Coefficients

N of Cases = 36.0

N of Items = 10

## RELIABILITY ANALYSIS - SCALE (EWBE)

## Item-total Statistics

|  | Scale<br>Mean<br>if Item<br>Deleted   | Scale<br>Variance<br>if Item<br>Deleted  | Corrected<br>Item-<br>Total<br>Correlation                                    | Alpha<br>if Item<br>Deleted   |
|--|---|--|---|---|
| Q2E<br>Q4E<br>Q6E<br>Q8E<br>Q10E<br>Q12E<br>Q12E<br>Q16E<br>Q18E | 48.4444<br>48.5556<br>48.9722<br>48.8889<br>48.7500<br>48.6667<br>48.7222<br>49.5556<br>48.4167 | 53.5683<br>52.5397<br>45.1706<br>46.444<br>46.5929<br>46.2286<br>46.2635<br>45.8540<br>48.9929 | .4943<br>.5150<br>.5938<br>.7452<br>.6644<br>.8270<br>.8534<br>.4778<br>.7052 | .8796<br>.8779<br>.8762<br>.8607<br>.8669<br>.8554<br>.8554<br>.8923<br>.8655 |
| Q20E   | 48.2778   | 54.2063  | .5892   | .8781   |

## Reliability Coefficients

| N of Cases = | 36.0 | N of Items = 10 |
|--------------|------|-----------------|
| Alpha = .88  | 23   |                 |

|      |                           | Correl                            | ation Coefficients        |  |
|------|---------------------------|-----------------------------------|---------------------------|--|
|      | EWBE                      | SWBE                              | RWBE                      |  |
| RWBS | .7545<br>(36)<br>P=.000   | .8038<br>( 36)<br>P= .000         | .8109<br>( 36)<br>P= .000 |  |
| EWBS | .9348<br>( 36)<br>P= .000 | .9144<br>( 36)<br>P= .000         | .8033<br>( 36)<br>₽≖ .000 |  |
| SWBS | .9209<br>( 36)<br>₽= .000 | .92 <b>44</b><br>( 36)<br>P= .000 | .8496<br>( 36)<br>P= .000 |  |

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

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Appendix L

Mean Scores by Denomination

- - Description of Subpopulations - -

| Summaries of<br>By levels of |                               |          |         |       |
|------------------------------|-------------------------------|----------|---------|-------|
| Variable                     | Value Label                   | Mean     | Std Dev | Cases |
| For Entire P                 | opulation                     | 107.5333 | 11.4671 | 75    |
| DENOM                        | 1.00                          | 106.3750 | 11.6348 | 40    |
| DENOM                        | 2.00                          | 109.8333 | 8.2805  | 6     |
| DENOM                        | 3.00                          | 108.1667 | 9.4636  | 18    |
| DENOM                        | 4.00                          | 94.0000  | 17.4547 | 4     |
| DENOM                        | 5.00                          | 113.0000 |         | 1     |
| DENOM                        | 6.00                          | 118.5000 | .7071   | 2     |
| DENOM                        | 7.00                          | 120.0000 | •       | 1     |
| DENOM                        | 8.00                          | 119.3333 | 1.1547  | 3     |
| Total Case<br>Missing Case   | s = 111<br>s = 36 or 32.4 Pct |          |         |       |

## - - Analysis of Variance - -

Dependent Variable SWB By levels of DENOM

| Value Label         | Mean     | Std Dev | Sum of Sq | Cases |
|---------------------|----------|---------|-----------|-------|
| 1.00                | 106.3750 | 11.6348 | 5279.3750 | 40    |
| 2.00                | 109.8333 | 8.2805  | 342.8333  | 6     |
| 3.00                | 108.1667 | 9.4636  | 1522.5000 | 18    |
| 4.00                | .94.0000 | 17.4547 | 914.0000  | 4     |
| 5.00                | 113.0000 |         | .0000     | 1     |
| 6.00                | 118.5000 | .7071   | .5000     | 2     |
| 7.00                | 120.0000 |         | .0000     | 1.    |
| 8.00                | 119.3333 | 1.1547  | 2.6667    | 3     |
| Within Groups Total | 107.5333 | 10.9693 | 8061.8750 | 75    |

| Source                           | Sum of<br>Squares     | d.f.        | Mean<br>Square       | F                | Sig.           |
|----------------------------------|-----------------------|-------------|----------------------|------------------|----------------|
| Between Groups                   | 1668.7917             | 7           | 238.3988             | 1.9813           | .070 <b>6</b>  |
| Linearity<br>Dev. from Linearity | 444.2422<br>1224.5495 | 1<br>6      | 444.2422<br>204.0916 | 3.6920<br>1.6961 | .0589<br>.1355 |
|                                  | R = .2137             | R Squared   | 0457                 |                  |                |
| Within Groups                    | 8061.8750             | 67          | 120.3265             |                  |                |
|                                  | Eta = .4141           | Eta Squared | 1715                 |                  |                |

- - Description of Subpopulations - -

| Summaries of RWB<br>By levels of DENOM |         |         |       |
|--|---------|---------|-------|
| Variable Value Label                   | Mean    | Std Dev | Cases |
| For Entire Population                  | 55.6400 | 5.5499  | 75    |
| DENOM 1.00                             | 54.9250 | 5.8590  | 40    |
| DENOM 2.00                             | 56.1667 | 4.4907  | 6     |
| DENOM 3.00                             | 56.3333 | 4.9349  | 18    |
| DENOM 4.00                             | 51.2500 | 7.8475  | 4     |
| DENOM 5.00                             | 60.0000 |         | 1     |
| DENOM 6.00                             | 60.0000 | .0000   | 2     |
| DENOM 7.00                             | 60.0000 |         | 1     |
| DENOM 8.00                             | 60.0000 | .0000   | 3     |
| Total Cases = 111                      |         |         |       |
| Missing Cases = 36 or 32.4             | Pct     |         |       |

## - - Analysis of Variance - -

Dependent Variable RWB By levels of DENOM

| Value I       | abel  | Mean    | Std Dev | Sum of Sq | Cases |
|---------------|-------|---------|---------|-----------|-------|
| 1.00          |       | 54.9250 | 5.8590  | 1338.7750 | 40    |
| 2.00          |       | 56.1667 | 4.4907  | 100.8333  | 6     |
| 3.00          |       | 56.3333 | 4.9349  | 414.0000  | 18    |
| 4.00          |       | 51.2500 | 7.8475  | 184.7500  | 4     |
| 5.00          |       | 60.0000 |         | .0000     | 1     |
| 6.00          |       | 60.0000 | .0000   | .0000     | 2     |
| 7.00          |       | 60.0000 |         | .0000     | 1     |
| 8.00          |       | 60.0000 | .0000   | .0000     | 3     |
| Within Groups | Total | 55.6400 | 5.5157  | 2038.3583 | 75    |

| Source                           | Sum of<br>Squares   | d.f.        | Mean<br>Square     | F               | Sig.  |
|----------------------------------|---------------------|-------------|--------------------|-----------------|-------|
| Between Groups                   | 240.9217            | 7           | 34.4174            | 1.1313          | .3544 |
| Linearity<br>Dev. from Linearity | 97.9848<br>142.9369 | 1<br>6      | 97.9848<br>23.8228 | 3.2207<br>.7830 | .0772 |
|                                  | R = .2073           | R Squared   | .0430              |                 |       |
| Within Groups                    | 2038.3583           | 67          | 30.4233            |                 |       |
|                                  | Eta = .3251         | Eta Squared | l = .1057          |                 |       |

- - Description of Subpopulations - -

| By levels of DENOM  |  |  |  |
|---|--|--|--|
| Variable Value Label  | Mean   | Std Dev  | Cases                                  |
| For Entire Population   | 51.8933  | 6.7994   | 75                                     |
| DENOM         1.00           DENOM         2.00           DENOM         3.00           DENOM         4.00           DENOM         5.00           DENOM         6.00           DENOM         7.00           DENOM         8.00 | 51.4500<br>53.6667<br>51.8333<br>42.7500<br>53.0000<br>58.5000<br>60.0000<br>59.3333 | 6.5278<br>4.9261<br>6.1189<br>10.2754<br>.7071<br>1.1547 | 40<br>6<br>18<br>4<br>1<br>2<br>1<br>3 |

Total Cases = 111 Missing Cases = 36 or 32.4 Pct

EWB

- - Analysis of Variance - -

Dependent Variable EWB By levels of DENOM

Summaries of

| Value Label         | Mean    | Std Dev | Sum of Sq | Cases |
|---------------------|---------|---------|-----------|-------|
| 1.00                | 51.4500 | 6.5278  | 1661.9000 | 40    |
| 2.00                | 53.6667 | 4.9261  | 121.3333  | 6     |
| 3.00                | 51.8333 | 6.1189  | 636.5000  | 18    |
| 4.00                | 42.7500 | 10.2754 | 316.7500  | 4     |
| 5.00                | 53.0000 |         | .0000     | 1     |
| 6.00                | 58.5000 | .7071   | .5000     | 2     |
| 7.00                | 60.0000 |         | .0000     | 1     |
| 8.00                | 59.3333 | 1.1547  | 2.6667    | 3     |
| Within Groups Total | 51.8933 | 6.3946  | 2739.6500 | 75    |

| Source                           | Sum of<br>Squares    | d.f.        | Mean<br>Square      | F                | Sig.           |
|----------------------------------|----------------------|-------------|---------------------|------------------|----------------|
| Between Groups                   | 681.4967             | 7           | 97.3567             | 2.3809           | .0309          |
| Linearity<br>Dev. from Linearity | 124.9550<br>556.5416 | 1<br>6      | 124.9550<br>92.7569 | 3.0559<br>2.2684 | .0850<br>.0472 |
|                                  | R = .1911            | R Squared   | <b>i =</b> .0365    |                  |                |
| Within Groups                    | 2739.6500            | 67          | 40.8903             |                  |                |
|                                  | Eta = .4463          | Eta Squarec | 1 = .1992           |                  |                |

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Appendix M

Vita

## Vita

## Kay Colleen Bruce

## Career Objective

Licensed Clinical Psychologist

## Education

| 1996: | Psy.D. (Anticipated) in Clinical Psychology, |
|-------|--|
|       | George Fox University, Newberg, OR.          |
| 1994: | Diploma in World Ministry, Western           |
|       | Conservative Baptist Seminary, Portland, OR. |
| 1994: | M.A. in Clinical Psychology, George Fox      |
|       | College, Newberg, OR.                        |
| 1979: | B.A. in Psychology and German, Portland      |
|       | State University, Portland, OR.              |
|       |  |

## Clinical Experience

| 1995 <b>- :</b>   | Columbia Pastoral Counseling Center,<br>Vancouver, WA. Responsibilities:<br>Individual Adult, Children, Family, and<br>Marital Therapy.  |
|-------------------|--|
| 1995 <b>-</b> 96: | Longview Psychological Group, Longview,<br>WA. Responsibilities: Individual Adult,<br>Family, Marital, and Group Therapy.  |
| 1995-96:          | Peace Health St. John Hospital, Longview,<br>WA. Responsibilities: Psychological<br>Intern on Psychiatric Floor, including<br>Psychological Testing, Individual Adult,<br>and Group Therapy. |
| 1993 <b>-</b> 95: | Sunnyside Counseling Center, Portland,<br>OR. Responsibilities: Individual Adult<br>and Group Therapy.   |
| 1993:             | Counseling Center of Vancouver,<br>Vancouver, WA. Responsibilities:<br>Individual Adult Therapy.   |

## Employment Experience

| 1996- :           | Western Seminary, Portland, OR. Title:  |
|-------------------|---|
|                   | Assistant Professor of Counseling.      |
| 1980 <b>-</b> 93: | Law Office of Paul R. Bruce, Vancouver, |
|                   | WA. Title: Legal Assistant and Office   |
|                   | Manager.                                |

Professional Achievement

1994: Seminar Presentation, Christian Association for Psychological Services. Del Mar, CA.