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The Spiritual Well-Being Scale:

Addressing the Saintly Ceiling

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Abstract

The *Spiritual Well-Being Scale* (SWBS; Paloutzian & Ellison, 1982) is one of the most utilized measures of spiritual well-being. It was developed as a subjective indicator of an individual's perceived spiritual quality of life in two subscales which reflect two dimensions: Religious Well-Being (RWB), the religious sense reflecting a person's relationship with God or a Supreme Being; and Existential Well-Being (EWB), which reflects the transcendent sense of spirituality. The SWBS has faced criticisms regarding an inconsistent factor structure and significant issues with ceiling effects among highly religious samples. This study evaluated the SWBS in a convenience sample of practicing Catholics in several parishes in San Antonio, TX. Most significantly, the study provided original research demonstrating the effectiveness of two methods to address ceiling effects: 1) a modified rating-scale, comparing frequency of agreement versus strength of agreement; and 2) revised wording on several items to elicit 'How often do I feel…' well-being responses instead of 'I believe…' faith-agreement responses. The revised wording, which was tested in conjunction with frequency of agreement response scale, resulted in a significant reduction in means and increase in the variances of both the SWBS and the EWB subscales, and a reduction in the skewness of the response distributions by 18% and 27%, respectively.

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Experts are divided over the 'value' of religion and spirituality (Pargament, 2002). Many social and psychological researchers refer to the relationships found between faith and greater overall well-being, happiness and life satisfaction (Lun & Bond, 2013; Paloutzian, Bufford, & Wildman, 2012; Clark & Lelkes, 2009). However, the cynic may cite studies which show that extremists and rigid fundamentalists hold strong prejudicial feelings toward some ethnic and social groups (Shahabi et al, 2002), sometimes resorting to violent actions in the name of God (Pargament, 2002; Bushman, Ridge, Das, Key, & Busath, 2007). This study holds to the former assertion that Spiritual Well-Being is a positive and favorable outcome in general, rather than dwelling on the latter adverse manifestations which are anecdotally prominent in the public eye despite weak quantitative research (Freilich & LaFree, 2016).

A significant body of scholarly work provides evidence for the importance of the spiritual domain within leadership studies (Fry, 2003; Avolio, Walumbwa, & Weber, 2009; Bass & Bass, 2008), particularly with respect to outcomes for organizations (Fry & Matherly, 2006), followers (Aydin & Ceylan, 2009), and for the leader himself (Boyatzis & McKee, 2005). Burns (1978), the author of the seminal book *Leadership,* asserts that leadership is a "process of morality" in that leaders meet the various needs of followers, including their spiritual needs (p. 36). "[T]ransforming leadership becomes *moral* [emphasis in original] in that it raises the level of human conduct and ethical aspiration of both leader and led" (Burns, 1978, p. 20). Understanding spirituality and well-being of both 'leader and led' is crucial to successful long-term leadership.

Spirituality and Spiritual Well-Being

One of the first and most formidable difficulties with spirituality in leadership is the lack of an agreed upon definition of spirituality (Bass & Bass, 2008). Moberg (2010) provides a concise summary of the development of the spiritual well-being construct, beginning with the White House Conference on Aging (WHCA) in 1971 which provided a foundational definition:

> …we shall consider "the spiritual" as pertaining to man's inner resources, especially his ultimate concern, the basic value around which all other values are focused, the central philosophy of life—whether religious, anti-religious, or nonreligious— which guides a person's conduct, the supernatural and nonmaterial dimensions of human nature. We shall assume, therefore, that all men [i.e., people] are "spiritual," even if they have no use for religious institutions and practice no personal pieties (Moberg, 2010, p. 101).

The National Interfaith Coalition on Aging (NICA), to fulfill its mandate from the WHCA, provided a non-sectarian definition for spiritual well-being (SWB) in 1975: "Spiritual well-being is the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness" (Moberg, 2010, p. 101). Initial research into the nature and measurement of SWB was hindered by an academic disdain for the 'mystical' on one side and Christian resistance to scientific intrusion into the 'sacred' on the other. However, common ground was found through psychological inquiry into the observed connections between spirituality and emotional and physical health of the elderly, and anecdotal accounts by medical workers who were personally sensitive to cases of divine intervention. The study of spirituality

has spread to the field of leadership through the crisscrossed network of psychology, sociology, theology, epidemiology and the advent of interdisciplinary research (Moberg, 2010).

The key distinction in determining how spirituality relates to outcomes can be refined by examining two distinct facets of spirituality posited by Allport and Ross (1967, as cited in Pargament, 1992). The 'extrinsic' or outward manifestation of one's spiritual nature relates to the practices, the rites, and the rules pertinent to a particular faith group; this is aligned with the 'religious' vertical component of spirituality by Ellison (1983). The 'intrinsic' or ineffable inner peace is the sense of purpose and satisfaction with life and the world around us, that which transcends a specific religious philosophy; this is Ellison's socio-psychological or 'existential' horizontal component. Considering these distinctions, the two subscales of the SWBS have shown unique patterns of relationships; religious well-being represents a person's intrinsic faith and religiosity, while existential well-being is more related to life satisfaction, happiness, and overall psychological well-being (Ellison, 1983; Genia, 2001).

Outcomes related to spirituality and spiritual well-being

Spirituality of individuals has also been shown to have positive effects on the people who live around them. Clark and Lelkes (2009) used pooled survey data from 90,000 individuals across 26 European countries to examine these religious spillover effects on life satisfaction and discovered that even non-religious individuals in a country see improvements in life satisfaction when there is a higher percentage of Christians, churchgoers, and persons praying in the country. Also, the higher the churchgoing of any faith in a region, the more socially involved are the non-religious in the area, including helping others and donating time or money to voluntary

organizations. While sceptics remain, there is an ever-expanding library of empirical research supporting that a healthy spiritual life has its benefits in this world as well as faith in benefits in the next (Moberg, 2010). The following is a non-exhaustive list of research showing a broad range or favorable physical and psychological relationships with spiritual well-being:

- Improved heart function (Berntson, Norman, Hawkley, & Cacioppo, 2008)
- Increased pain tolerance (Wachholtz & Pargament, 2005)
- Lower frequency of psychological conditions such as distress, depression, anxiety, or mental illness (Maselko, Gilman, & Buka, 2009; Strelan, Acton, & Patrick, 2009; Douglas, Jimenez, Lin, & Frisman, 2008; Moberg, 2010)
- Improved coping with adverse physical diagnoses or catastrophic life events (Chen, Brown, & Kotbungkair, 2015; Douglas et al., 2008; Pargament, 1992; Pargament & Park, 1995; Steiner, Suarez, Sells, & Wykes, 2011)
- Improved coping with lifestyle choices and their consequences (Jacobs, Viljoen, & van der Walt, 2012; Hurlbut, Robbins, & Hoke, 2011; Von Dras, Schmitt, & Marx, 2007; Laudet, Morgen, & White, 2006)
- Greater general well-being and happiness (Freeze & DiTommaso, 2015; Lun & Bond, 2013; Pashak & Laughter, 2012; Clark & Lelkes, 2009)

Measuring Spiritual Well-Being

As the intangible manifestations of spirituality are very difficult to assess objectively, most research has focused on pseudo-objective self-assessments of spiritual well-being (Slater, Hall, & Edwards, 2001). Religiousness has typically been measured by relatively objective

measures such as participation levels, regular practices (Lun & Bond, 2013), or orthodoxy to a particular faith or denomination (Hill & Hood, 1999). However, none of these consider the reliance on religious principals in daily life activities such as relationships, parenting, work, or major life events, which Pargament (2002) sees as the practical purpose of religion – the spiritual well-being of the individual resulting from integration of faith and daily life. This integration, the extrinsic connection with the world around them, is what the faithful themselves seek and value. This involves having confidence that God is supporting them, having a greater and final purpose in life, a clear definition of right and wrong accompanied by a means of forgiveness, and being a part of a close community of like-minded believers (Hill & Pargament, 2008; Ingersoll, 1998; Pargament, 2002). While many in the scientific community question the utility and feasibility of even trying to "measure the immeasurable" (Moberg, 2010), Paloutzian and Ellison's (1982) instrument has been in use for more than three decades.

The *Spiritual Well-Being Scale*

The *Spiritual Well-Being Scale* (SWBS; Paloutzian & Ellison, 1982; Ellison, 1983) is the most utilized measure of general spiritual well-being (Hill & Hood, 1999), particularly in the fields of clinical practice and counseling, healthcare and rehabilitation programs, and congregational assessment (Paloutzian & Ellison, 2009). It is a 20-item instrument with each item rated on a 6-point Likert scale (1 = *strongly agree*, 6 = *strongly disagree*), with some of the items reverse scored (Bufford, Paloutzian, & Ellison, 1991). The scale was initially published as a chapter in a larger work on loneliness (Paloutzian & Ellison, 1982) and then subsequently as an article explaining the conceptualization and measurement of spiritual well-being (Ellison, 1983).

The authors' goal was to provide a general measure of spiritual well-being while "not getting bogged down in specific theological issues or a priori standards of well-being which may vary from one religious belief system or denomination to another" (Ellison, 1983, p. 332).

The problem – ceiling effects in religious samples

Even early uses of the SWBS on religious groups found the results to be strongly negatively skewed, particularly in evangelical Christian samples. The typical person rates him or herself at the maximum score (Bufford et al., 1991). Other researchers have also observed that the SWBS is prone to ceiling effects (Proeschold-Bell, Yang, Toth, Rivers, & Carder, 2013; Slater et al., 2001), especially in evangelicals and clergy. Genia (2001) noted in a sample of 211 college students that skewness was most negative in Christian participants, moderate for Jewish, and most positive in non-religiously affiliated participants. Indeed, in a review of 17 studies, Ledbetter, Smith, Vosler-Hunter, and Fischer (1991) noted that the most statistically normal distribution of SWBS scores was that of a sample non-religious sociopathic convicts. Similarly, Scott, Agresti, and Fitchett (1998) found no evidence of ceiling effects in a sample of psychiatric in-patients. So, while the scale has been useful in evaluating persons in clinical situations who were experiencing emotional distress (scores at the low end of the scale) and in conjunction with life-threatening medical diagnoses (scores of a cross-section of faith maturity levels), it has not been shown to properly distinguish the levels of well-being among highly spiritual or religious groups (Bufford et al., 1991).

Previous methods to address ceiling effects

Brinkman (1989, as cited in Endyke, 1999) attempted more precision in responses by replacing the limited 6-item discrete response scale with a continuous scale of 1 to 100%, but neither the variability nor the ceiling effects were improved. Brinkman et al. (as cited in Bufford et al., 1991) suggested adding items to the scale which would have more variability in response for highly religious samples. To this end, Kelly (1993) attempted to address the ceiling effects by producing an extensively revised 21-item Revised SWBS (RSWBS), retaining only 9 items unchanged, while deleting 8 items, revising 3 items, and adding 9 new items. The author surveyed members of 14 Catholic women's religious congregations across the United States, and 359 nuns/sisters provided responses to both the original and revised instruments. The RSWBS did have fewer respondents reporting a maximum score than the SWBS, but did not have significantly reduced means as a percentage of the maximum possible (M_{RWB} = 90%, M_{RRWB} = 90%, M_{EWB} = 87%, M_{REWB} = 86%), nor significantly reduced skewness (Sk_{SWBS} = -.97, Sk_{RSWBS} = -.78). Endyke (1999) created a new, more rigorous Spiritual Discipline dimension by adding eight items which had a positive skewness separately; however, the change did nothing to reduce the skewness of the original.

Ledbetter, Smith, and Vosler-Hunter (1991) suggested rewording items, adding items, or revising scoring procedures. Murray, Johnson, Gow, and Deary (2015) offered several suggestions for improving the construct validity, but the authors also cautioned against changing the factor structure out of concerns for degrading the reliability of the instrument; they did not address ceiling effects.

Proeschold-Bell, Yang, Toth, Rivers, and Carder (2013) suggest that asking for frequency of experience rather than strength of agreement is an effective means to avoid ceiling effects and to account for time or event driven differences in well-being that may occur even with a consistent level of faith. Meyers (1986, as cited in Endyke, 1999) had previously attempted a frequency scale (1 = *Always true*, 6 = *Never true*) but results were not a statistically significant improvement. However, Proeschold-Bell et al. (2013) employed a five-point Likert scale (*Never* to *Always*) in their *Clergy Spiritual Well-Being Scale* (CSWBS), and noted an absence of ceiling effects despite being a sample of 1,513 clergy from the United Methodist Church. Similarly, Underwood and Teresi (2002) utilized a 6-point frequency-of-experience Likert scale (1 = *many times a day*, 6 = *never or almost never*) on the *Daily Spiritual Experiences Scale* (DSE) and reported adequate variability in responses from 400 diverse participants in three separate studies.

Psychometric Properties of the Spiritual Well-Being Scale (SWBS)

Development of the *Spiritual Well-Being Scale*

The scale development began in 1979, with the initial version containing 15 items (Ellison, 1983). There is strong agreement that the SWBS, including both the RWB and EWB subscales as well as the combined Spiritual Well-Being scale total (SWB) measures what it purports to measure, both due to the manner of its initial construction and by its use in more than 1,000 studies (Paloutzian & Ellison, 2009). While not always the case in published research, it is recommended that separate EWB and RWB scales be used rather than combining them into a single SWB scale due to the distinctness in the subscales with respect to their correlates and consequences (Paloutzian & Ellison, 2009; Genia, 2001).

Initial exploratory factor analysis (EFA) of the 20-item scale, using a sample of 206 students at three religiously-oriented colleges, identified two factors (Ellison, 1983). Genia (2001) surveyed 211 college students and confirmed the original EWB and RWB constructs. However, there have been a number of challenges to the factor structure of the SWBS based on: its assumption of a belief in God (Meezenbroek et al., 2012), language nuances such as negatively worded items loading on subdivisions of the constructs (Gow, Watson, Whiteman, & Dreary, 2011; Scott et al., 1998; Murray et al., 2015; Wykes, 2001), unique ethnic perspectives (Miller, Gridley, & Fleming, 2001), and differentiation difficulties due to highly religious samples (Ledbetter, Smith, Fischer, Vosler-Hunter, & Chew, 1991; Kelly, 1993). While the factor structure of the SWBS was not determined in this study, the consideration of language, ethnicity and culture, and being a highly religious sample are pertinent factors in this research.

Discriminant validity

The EWB and RWB subscales of the SWBS have been noted to measure unique concepts in general population samples. Genia (2001) found that the oblique rotation scales were only weakly to moderately correlated (r = .28). However, other studies have reported a strong correlation between the scales (reduced discriminant validity) in religious samples, and moderate or even non-significant correlation in non-religious samples (Von Dras, Schmitt, & Marx, 2007; Jurkovic & Walker, 2006). The researcher expects that EWB and RWB will be highly correlated in this study.

Reliability

The SWBS and both subscales have shown strong internal consistency. Seven early studies found strong Cronbach's alphas: RWB (α = .82 to .94) and EWB (α = .78 to .86) (Bufford et al., 1991). All other studies reviewed by this author had equally strong scale reliabilities.

Spanish Translation

Bruce (1996) reported the results of a detailed validation study on the Spanish translation of the SWBS, the *Escala de Bienestar Espiritual* (EBE; Bruce & Stegner, 1994, as cited in Bruce, 1996). Bruce and Stegner's pilot study (1994) was conducted with 115 attendees with four religious congregations in the Pacific Northwest, and found strong internal consistency (α_{RWB} = .78, α_{EWB} = .76). Bruce's (1996) validation was conducted with a total sample of 111 Spanish-speaking participants in six religious groups in the Pacific Northwest. Content validity of the EBE was demonstrated by comparing the English SWBS and the Spanish EBE scores of a subsample of fully bilingual subjects (n = 36, r_{RWB} = .81, r_{EWB} = .93, $p < .001$); there were no significant differences in means between the EBE and SWBS and demographics were not related to any EBE measure. RWB was strongly correlated with EWB (r = .71, $p < .001$). Regarding the translation of the EBE and administration to Hispanic participants, the author noted:

- Some participants (10%) returned the survey blank or with identical answers to all questions, indicating that there may be some lack of understanding of test-taking processes, to which most U. S. natives are accustomed. This was also supported by a correlation between the EBE scores and number of years spent in the U. S.

- The use of a double-negative question format is abnormal in Spanish (e.g. "I don't feel God's presence in my life" would be answered as *Strongly Disagree* to be a favorable response), and may have led to a lower reliability of the EBE vs. SWBS.

The purpose of the present study was twofold. First, the primary purpose was to test the new wording for the scales. Second, the significance of several predictor demographic variables was tested.

Methodology

Sample and Participant Selection

The sample was drawn from active Catholics from several parishes in the Archdiocese of San Antonio, solicited as a convenience sample after masses, at parish social functions, and from friends of the researcher. Therefore, the participants were more accommodating than the typical Catholic, perhaps leading to higher reported well-being than would otherwise be expected. A summary of the demographic responses is provided in Table 1. There were no differences between the English and Spanish samples with respect to gender or marital status; however the Spanish speaking participants were younger, $t(112) = -2.3$, $p < .05$, had less formal education, $\chi^2(5,129) = 26.5$, $p < .001$, and were more likely to be Hispanic and speak Spanish at home. As participation in a faith community has been shown to be related to spiritual well-being (Okonkwo, 2015), parish involvement and attendance information was also collected from participants. A summary of the responses is provided in Table 2. There were no differences in the Catholic status; however, those taking the survey in Spanish were less formally involved in the parish, $\chi^2(4, 131) = 12.6$, $p < .05$, and had a different mass attendance distribution, $\chi^2(3, 133)$

= 9.3, $p < .05$, in that they were more consistent weekly attendees, while the English participants were more likely to attend more often than once per week.

Table 1

Summary of Demographic Responses

Group	Statistic	Total		English		Spanish	
Total Valid Responses	*n*	138	100%	102	74%	36	26%
Gender							
Male	*n*	56	42%	46	46%	10	29%
Female	*n*	79	58%	54	54%	25	71%
No Response	*n*	3		2		1	
Age							
Year of Birth	*M*	61.5		59.8		66.6	
	SD	14.1		14.3		12.3	
No Response	*n*	24		17		7	
Marital Status							
Consecrated Life	*n*	2	2%	2	2%	-	-
Single	*n*	14	10%	10	10%	4	11%
Married	*n*	103	76%	75	74%	28	80%
Divorced or Separated	*n*	11	8%	9	9%	2	6%
Widowed	*n*	6	4%	5	5%	1	3%
No Response	*n*	2		1		1	
Education							
Less than High School	*n*	8	6%	1	1%	7	21%
High School or GED	*n*	18	13%	10	10%	8	24%
Some Tech or College	*n*	21	16%	16	16%	5	15%
Associate's (2 yr) degree	*n*	15	11%	12	12%	3	9%
Bachelor's (4 yr) degree	*n*	37	28%	30	30%	7	21%
Graduate degree	*n*	35	26%	32	32%	3	9%
No Response	*n*	4		1		3	
Cultural Identity							
Hispanic/Latino	*n*	71	52%	37	37%	34	97%
White/Anglo	*n*	58	43%	57	56%	1	3%
Other	*n*	7	5%	7	7%	-	-
No Response	*n*	2		1		1	
Home Language							
English	*n*	97	72%	92	91%	5	15%

Spanish	*n*	38	28%	9	9%	29	85%
No Response	*n*	3		1		2	

Table 2

Summary of Involvement and Attendance Responses

Group	Statistic	Total		English		Spanish	
Total Valid Responses	*n*	138	100%	102	74%	36	26%
Catholic Status							
Non-Catholic	*n*	1	1%	1	1%	-	-
Inactive Catholic	*n*	3	2%	1	1%	2	6%
Returned Catholic	*n*	6	4%	5	5%	1	3%
Converted Catholic	*n*	14	10%	14	14%	-	-
Life-Long Active Catholic	*n*	112	82%	77	76%	32	91%
No Response	*n*	2		1		1	
Parish Role							
Paid Parish Staff	*n*	1	1%	1	1%	-	-
Volunteer Parish Staff	*n*	3	2%	3	3%	-	-
Parish Ministry Volunteer	*n*	54	40%	35	35%	19	56%
Registered Parishioner	*n*	65	48%	56	55%	9	26%
Non-registered Parishioner	*n*	12	9%	6	6%	6	18%
No Response	*n*	3		1		2	
Attendance							
Never or Rarely	*n*	-	-	-	-	-	-
A few times a year	*n*	-	-	-	-	-	-
Once a month or less	*n*	4	3%	1	1%	3	9%
Most weeks	*n*	14	10%	12	12%	2	6%
Every week	*n*	83	61%	58	57%	25	71%
More than once a week	*n*	35	26%	30	30%	5	14%
No Response	*n*	2		1		1	

Instrument Variations

This study evaluated several differences in instrument design with a modified design of experiments approach to address the noted ceiling effects as well as other confounding factors.

Language. English and Spanish language versions were offered so that participants would choose their language of preference (1 = *English*, 2 = *Spanish*).

Side. The survey booklet included a second instrument in addition to the SWBS. To evaluate 'prior exposure' bias as noted by Bruce (1996), the side on which the SWBS was presented to the participant was noted (1 = *Right*, 2 = *Left*).

Version. Rating scale variants included the unmodified original 'strength of agreement' 6-point Likert scale (6 = *Strongly Agree* to 1 = *Strongly Disagree*) as a control, a revised 'frequency of agreement' 6-point Likert scale (1 = *Never* to 6 = *Always*) to evaluate the frequency factor alone, and a revised 'frequency of agreement 10-point Likert scale (1 = *Never* to 10 = *Always*) to evaluate the frequency factor with a wider scale (Version: 1 = *Original*, 2 = *Frequency 6-point*, 3 = *Frequency 10-point*).

Wording. Variants were created to evaluate a novel approach of addressing the ceiling effects in highly religious groups: changing the wording "I believe…" to "I feel…" on item numbers 3, 5, 13, and 20 (and item 4 on the Spanish translation). In the Catholic faith, the assertion of "I believe…" is much more an affirmation of commitment to the faith (United States Catholic Conference, 2000, §185 & 199), than it is a temporary indicator of well-being, therefore wording which more clearly expresses a current emotional state is desired (Wording: 0 =

Original wording and scale, 1 = Original wording and revised frequency scale, 2 = Revised wording and revised frequency scale).

A reduced number of versions was produced with "I feel…" wording on alternate sides for the 6-point and 10-point frequency scales only. All changes to the scale and the wording were approved by Dr. R. F. Paloutzian (personal communication, October 7, 2016). Surveys were printed in a single page folded-booklet format with informed consent information on the cover, the SWBS and parish commitment surveys on either half of the inside, and demographics questionnaire on the back; the different versions were distributed evenly throughout the available copies so each participant was effectively presented with a randomly assigned version of the survey.

Data Collection and Analysis

A total of 158 surveys were returned (111 English and 47 Spanish); however, five were eliminated for leaving more than two items for a scale incomplete, resulting in a total of 153 surveys for analysis (106 English and 46 Spanish). Missing responses for individual items (13 [0.6% of total responses] English and 17 [1.9%] Spanish) were replaced with the sub-scale average for the participant. Scale totals were calculated and scores of the 10-item version rescaled to a maximum of 60 for each scale.

In order to evaluate the potential confusion from negatively-worded items, the positively- and negatively-worded items were totaled separately for each subscale (i.e. RWB+, RWB-, EWB+, and EWB-) and scaled to a maximum of 60 for each subscale. The subscale scores were then summed to obtain positive and negative combined SWB scale scores and the difference

between these was determined; the researcher selected an arbitrary cutoff value of 24 (20% of the SWB scale total) as the maximum acceptable difference to identify outliers as participants who were potentially confused by the negative wording; 10 cases were eliminated based on this criterion, 4 English (3.6%) and 6 Spanish (13%). The subsequent analyses were performed on the remaining 138 surveys.

Results

Comparisons of Means

Language. There were no statistically significant differences between the RWB or EWB aggregated scores between the English and Spanish respondents, confirming Bruce's (1996) finding. While there were some demographic and participation differences noted between the English and Spanish language participants, the Spanish and English results were pooled for the remainder of the analysis because of the equality of the mean scores.

Side. RWB and EWB scores were not statistically different when comparing sides of the page on which the survey was presented, thereby removing concern for any prior exposure bias from the other instrument in the survey.

Scale version. The 6-point frequency of agreement scale resulted in means that were lower than the original scale for RWB (M_{Orig} = 56.88, M_{Freq6} = 54.65, $F(2, 135) = 2.39$, *n.s.*; $t(96) = 2.08$, $p < .05$) and the 10-point frequency of agreement scale means were lower than the original for EWB (M_{Orig} = 53.51, M_{Freq10} = 50.69, $F(2, 135) = 2.01$, *n.s.*; $t(89) = 2.00$, $p < .05$). Details are provided in Table 3.

Wording. The revised wording of "I feel…" (Wording = 2) resulted in means which were lower than those for the original (Wording = 0) for both the RWB (M_{Orig} = 56.88, M_{Feel} = 53.60, $F(2, 135) = 5.99$, $p < .01$; $t(99) = 3.18$, $p < .01$) and EWB (M_{Orig} = 53.51, M_{Feel} = 50.24, $F(2, 135) = 3.65$, $p < .05$; $t(99) = 2.49$, $p < .05$). Details are provided in Table 3.

Multiple regression. To evaluate the relative weight of factors which contribute to the variance in the SWBS scales, multiple regression analysis was performed. An uncontrolled analysis was performed, considering all demographic, participation, and instrument design factors. Wording alone ("I feel…") explained 10.2% of variance resulting in a lower RWB ($R^2 = .102$, $F(1, 133) = 15.2$, $\beta = -.31$, $p < .001$), followed by Parish Role, which was coded in order of decreasing involvement such that lesser involvement was a contributor to lower RWB ($\Delta R^2 = .058$, $\Delta F(1, 132) = 9.2$, $p < .01$; $\beta = -.24$, $p < .01$). Marital status (being divorced) was the largest contributor to EWB, explaining 8.5% of the variance and being related to lower EWB ($R^2 = .085$, $F(1, 133) = 12.3$, $p \leq .001$, $\beta = -.25$, $p < .01$). This was followed by the "I feel…" wording, which was related to lower EWB ($\Delta R^2 = .053$, $\Delta F(1, 132) = 8.1$, $p < .01$; $\beta = -.22$, $p < .01$) and parish role ($\Delta R^2 = .034$, $\Delta F(1, 131) = 5.0$, $p < .05$; $\beta = -.24$, $p < .05$).

When controlled for all the demographic and participation factors, the "I feel…" wording explained an additional 8.4% of variance in RWB ($\Delta R^2 = .084$, $\Delta F(1, 93) = 10.3$, $\beta = -.31$, $p < .01$) and an additional 4.9% of variance in EWB ($\Delta R^2 = .049$, $\Delta F(1, 93) = 6.8$, $\beta = -.24$, $p < .05$). Results are summarized in Table 4.

Scale Reliability

As Wording was more impactful than Version on the SWBS results, the Cronbach's α scale reliabilities were determined separately for the "I believe…" version (Wording = 0 and 1; n = 87, M_{RWB} = 56.73, α_{RWB} = .77, M_{EWB} = 53.35, α_{EWB} = .78) and the "I feel…" version (Wording = 2; n = 51, M_{RWB} = 53.60, α_{RWB} = .78, M_{EWB} = 50.24, α_{EWB} = .87).

Table 3

Comparison of SWBS Versions

Scale	Comparison of Means *F, p*	Comparison of Variances *W, p*	Original Scale *n*	Original Scale *M*	Frequency (6) *n*	Frequency (6) *M*	Frequency (10) *n*	Frequency (10) *M*
RWB	2.39, .095	.51, .602	49	56.88	48	54.65[a*]	41	55.11
Original Wording	.18, .829	1.16, .319	49	56.88	20	56.20	18	56.93
Revised Wording	4.30[*], .016	.99, .377	49	56.88	28	53.54[a*]	23	53.69[a*]
EWB	2.01, .138	.82, .443	49	53.51	48	52.15	41	50.69[a*]
Original Wording	1.22, .300	.98, .380	49	53.51	20	54.50	20	51.63
Revised Wording	2.76, .068	2.46, .091	49	53.51	28	50.46	23	49.96[a*]

Scale	*F, p*	*W, p*	Wording = 0 *n*	Wording = 0 *M*	Wording = 1 *n*	Wording = 1 *M*	Wording = 2 *n*	Wording = 2 *M*
RWB	5.99[**], .003	2.23, .112	49	56.88	38	56.55	51	53.60[a**]
EWB	3.65[*], .029	3.10[*], .048	49	53.51	38	53.14	51	50.24[a*]

Note. Wording: 0 = Original wording and original scale; 1 = Original wording and frequency (6 or 10) scale; 2 = Revised "I feel…" wording and frequency (6 or 10) scale. [a]Mean is different from Original in post-hoc test using LSD analysis. *W* is Levene's Statistic for equality of variances. [*] $p \leq .05$; [**] $p \leq .01$; [***] $p \leq .001$

Table 4

Multiple Regression of Contributors to SWBS Variance

Scale	R^2	ΔR^2	F	p	ΔF	p	β	p
RWB (Uncontrolled)								
Wording (I feel…)	.102		15.165[***]	.000			-.310[***]	.000

Parish Role	.161	.058	12.636***	.000	9.176**	.003	-.242**	.003
RWB (Controlled)								
Demographics	.110		1.241	.275				
Participation	.154	.044	1.672	.393				
Wording (I feel…)	.238	.084	1.713	.054	10.275**	.002	-.312**	.002
EWB (Uncontrolled)								
Marital Status (Divorced)	.085		12.330***	.001			-.250**	.002
Wording (I feel…)	.138	.053	10.544***	.000	8.099**	.005	-.224**	.006
Parish Role	.172	.034	9.064***	.000	5.043*	.022	-.236*	.022
EWB (Controlled)								
Demographics	.219		2.796**	.004				
Participation	.279	.060	2.277**	.007				
Wording (I feel…)	.328	.049	2.673***	.001	6.775*	.011	-.238*	.011

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Correlations

For the original wording surveys, the RWB and EWB scales were moderately correlated ($n = 87$, $r = .53$, $p < .01$). No demographic variables were correlated with either subscale. Some participation measures were significantly related: increasing level of parish participation was related to greater RWB ($n = 85$, $r = .25$, $p < .05$) and EWB ($n = 85$, $r = .22$, $p < .05$); and lower EWB was related to being a returned Catholic ($n = 86$, $r = -.22$, $p < .05$) and being divorced ($n = 86$, $r = -.26$, $p < .05$).

For the revised "I feel…" version, the RWB and EWB scales were strongly correlated ($n = 51$, $r = .75$, $p < .001$). Demographic variables had some significant relationships: females had a lower EWB ($n = 50$, $r = -.32$, $p < .05$); and being married was related to higher EWB ($n = 50$, $r = .35$, $p < .05$), while being divorced or separated was correlated with lower EWB ($n = 50$, $r = -.30$,

p <.05), consistent with Hanna's (2000) findings. Participation, as indicated by more frequent attendance, was also related to higher EWB (n = 50, r = .32, p <.05).

Addressing the Saintly Ceiling

Considering the metrics previously used to evaluate the success of reducing ceiling effects within a religious sample, the new scales should have a mean significantly lower than the original scales, at a lower percentage of the full scale, have a reduced skewness, a ratio of number of standard deviations above and below the mean to the scale extremes closer to one (i.e. a more centered distribution), and a lower percentage of respondents reporting a maximum scale score (Meyers, 1986, as cited in Endyke, 1999; Bufford et al., 1991; Kelly, 1993; Endyke, 1999; Underwood & Teresi, 2002; Proeschold-Bell et al., 2013). As shown in Table 5, the changing of the wording resulted in a significant reduction in the means and increase in the variances (test of homogeneity of variances using Levene's Statistic) for both RWB and EWB, and improved all other previously utilized metrics, as well. As presented visually in Figure 1, the distribution of responses is substantially closer to a normal distribution for the Revised ("I feel…") wording.

Discussion

The *Spiritual Well-Being Scale* (Paloutzian & Ellison, 1982) has been successfully used in the general population research and has extensively documented applicability in physical, mental, and behavioral health settings (Paloutzian et al., 2012). It has been less effective when used within highly religious populations due to pronounced ceiling effects (Bufford et al., 1991; Proeschold-Bell et al., 2013). Previously attempted methods to address the ceiling effects issue

have not been successful, including those making significant changes to the number and wording of items on each subscale (Kelly, 1993; Endyke, 1999) which risked effecting the construct.

Table 5

Comparison of SWBS Score Distributions

			Max Scale (60)		Descriptives			Number of *s*		
Scale	*n*	*M*	*M*%	*n*%	*s*	*Skewness*	*Kurtosis*	To 10	To 60	Ratio
RWB										
Original Wording	87	56.73 (0.47)	95%	41%	4.40	-1.46 (.26)	1.45 (.51)	10.6	0.74	14.3
Revised Wording	51	53.60 (0.87)	89%	24%	6.19	-1.20 (.33)	1.04 (.66)	7.0	1.03	6.8
Comparison		$t = 3.46^{***}$ $p = .001$	-6%	-41%	$W = 4.06^{*}$ $p = .046$	-18%	-29%		+39%	-52%
EWB										
Original Wording	87	53.35 (0.62)	89%	14%	5.76	-1.12 (.26)	1.54 (.51)	7.5	1.15	6.5
Revised Wording	51	50.24 (1.08)	84%	12%	7.70	-0.82 (.33)	0.16 (.66)	5.2	1.27	4.1
Comparison		$t = 2.70^{**}$ $p = .008$	-6%	-14%	$W = 5.74^{*}$ $p = .018$	-27%	-90%		+10%	-37%

Note. Standard Error of statistics reported in parentheses (SE). *W* is Levene's statistic for equality of variances.
* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

validity and scale reliability which might have adversely impacted the instrument's use in clinical settings (Ledbetter, Smith, Vosler-Hunter et al., 1991; Murray et al., 2015).

The solution proposed and demonstrated in this study is a very simple one which merits further study: Replace "I believe…" statements with "I feel…" statements so as to separate a subject's perception of the tenants of faith with their actual spiritual experience with God. This conclusion was anecdotally supported during the collection of responses for this study: an ordained deacon who was completing a survey in the original format rhetorically observed "You know that the Archbishop requires that I answer some of these in a certain way…" Consistent

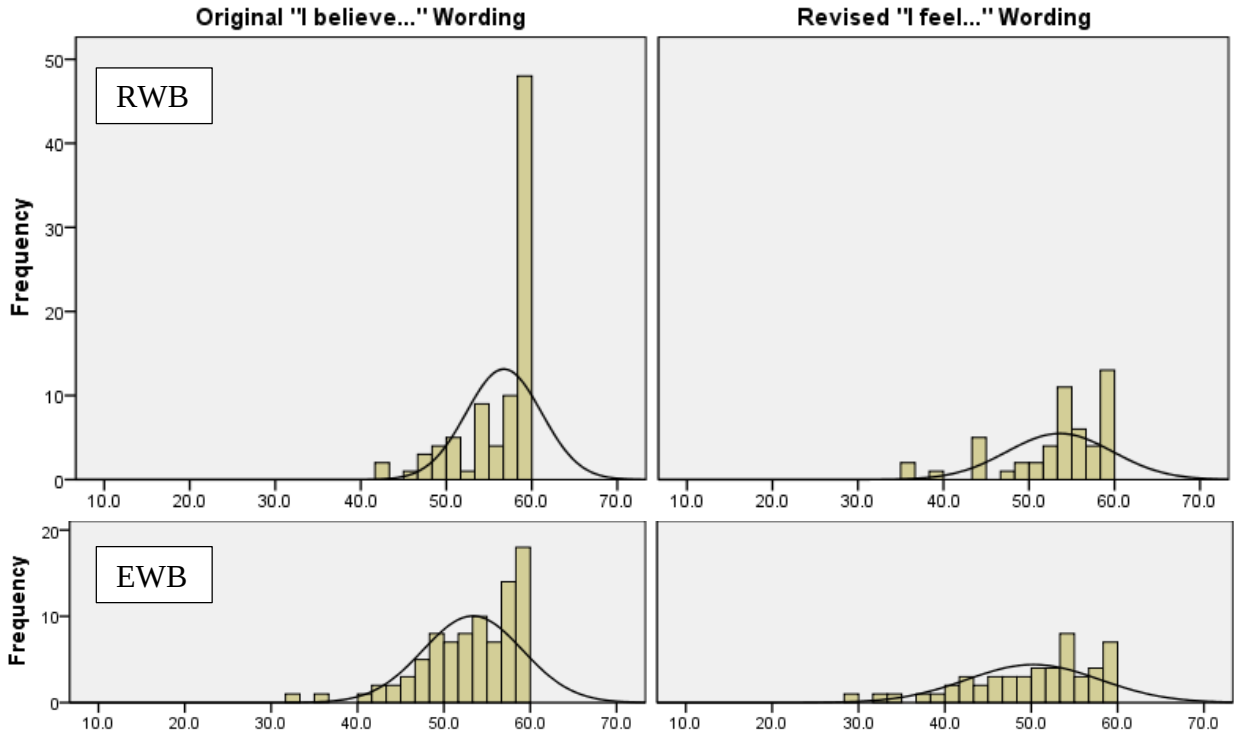

Figure 1. Histogram Comparison of SWBS Scales. Note that the Original wording charts (left) contain 87 responses, where the Revised wording charts (right) contain 51 responses, therefore some reduction in overall size is expected for the Revised wording charts.

with observations of Brinkman et al. (1991) regarding a lack of variation in responses, seven of ten of the RWB items on the original version were answered *Strongly Agree* by 80% or more of the respondents and the other three were answered the same by 70% or more of respondents. An extreme example is item #3, "I believe that God loves me and cares about me," where all 36 (100%) of the English respondents of the original version responded with *Strongly Agree*, while 27 of 29 (93%) answered *Always* on the frequency of agreement with the same wording, but only 29 of 37 (78%) answered *Always* on the revised item #3, "I feel that God loves me and cares about me."

Also, consistent with the observations of Bruce (1996), there were indications for this sample that Spanish speakers are less comfortable in completing surveys or more likely to be confused with the negative wording. For English respondents, 0.6% of individual items were left unanswered, divided evenly between positive and reverse-scored items, and 3.6% of cases were eliminated due to positive-negative wording score mismatch. For Spanish language surveys, 1.9% of individual items had omitted responses (1.2% positively scored and 2.7% or reverse scored items), and 13% of cases were eliminated due to positive-negative wording mismatch.

Limitations and Recommendations for Further Research

The results of this study may not be widely generalizable, as this study was focused on practicing Catholics in one archdiocese, and the respondents represented a highly involved and faithful sample of that already limited population.Further research with the revised scales and wording will be needed in samples from other faith groups, other segments of society, and other cultures to establish better support for generalizability. Additionally, further research is

warranted in clinical settings, where the original version has much popularity (Paloutzian et al., 2012), to determine if any performance differences exist.

A noted shortcoming in this study was the lack of testing the revised wording with the original strength of agreement (SOA) scale used by Paloutzian and Ellison (1982). Due to this design flaw, the impact of the frequency of agreement (FOA) aspect of the design is confounded with the wording change. Some support for the FOA approach has already been provided by other researchers (Proeschold-Bell et al., 2013; Underwood & Teresi, 2002). Therefore, while the efficacy of the combined frequency of agreement and wording changes was demonstrated and merits continued study for further refinements, future research might evaluate the impact of the wording changes on the original strength of agreement scale.

The relatively small sample size which was obtained reduced the statistical power of the study. Ideally, enough sample participants would have been obtained to evaluate the English and Spanish language versions separately, including Exploratory and/or Confirmatory Factor Analyses, to address concerns from other researchers regarding the 2-, 3-, 4-, and even 5-factor solutions observed within various sample groups (Scott et al., 1998; Wykes, 2001; Miller et al., 2001).

While not specifically evaluated in this study, there was some evidence of confusion with negatively worded items, as has been observed by other researchers (Murray et al., 2015), particularly with the Spanish translation of the SWBS (Bruce, 1996). Further research should be conducted to find alternate verbiage which will more clearly convey the conceptual distinctions of the troublesome items while also serving to deter or detect positive response bias.

Conclusion

The SWBS has been the gold-standard in general spiritual well-being instruments (Hill & Hood, 1999) for many years and need not and should not be substantially changed for it to be used effectively for many more years. However, a change in wording to reduce 'tenants of faith' bias may be warranted for improved effectiveness when used for research of highly religious populations. Additionally, researchers should consider using a 'frequency of agreement' rather than a 'strength of agreement' response scale. Finally, for samples which include Spanish-speaking participants or those with limited survey-taking experience, researchers should consider revising reverse-scored items to eliminate the potential confusion induced by the negative wording.

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