

The Spiritual Involvement and Beliefs Scale

Development and Testing of a New Instrument

Robert L. Hatch, MD, MPH; Mary Ann Burg, MSW, PhD; Debra S. Naberhaus;
and Linda K. Hellmich, PhD
Gainesville, Florida, and Northfield, Minnesota

BACKGROUND. Spirituality is receiving greater attention in the medical literature, especially in the family practice journals. A widely applicable instrument to assess spirituality has been lacking, however, and this has hampered research on the relationship between spirituality and health in the clinical setting.

METHODS. A new instrument, called the Spiritual Involvement and Beliefs Scale, was designed to be widely applicable across religious traditions, to assess actions as well as beliefs, to address key components not assessed in other available measures, and to be easily administered and scored. The instrument is a questionnaire containing 26 items in a modified Likert-type format. Following careful pretesting, the instrument was administered to 50 family practice patients and 33 family practice educators. The validity and reliability of the instrument were then evaluated.

RESULTS. By several measures, instrument reliability and validity are very good, with high internal consistency (Cronbach's alpha = .92); strong test-retest reliability ($r = .92$); a clear four-factor structure; and a high correlation ($r = .80$) with another established measure of spirituality, the Spiritual Well-Being Scale.

CONCLUSIONS. The Spiritual Involvement and Beliefs Scale (SIBS) appears to have good reliability and validity. Compared with other instruments that assess spirituality, the SIBS has several theoretical advantages, including broader scope, use of terms that avoid cultural-religious bias, and assessment of both beliefs and actions. More testing is underway to further assess its usefulness.

KEY WORDS. Religion and medicine; spiritual healing; questionnaires; family practice; physician-patient relations. (*J Fam Pract* 1998; 46:476-486)

Since the early 1980s, medicine has moved toward a more inclusive biopsychosocial model of patient care, emphasizing the importance of psychological and environmental factors on health.^{1,2} More recently, many have argued for expanding this model to include a spiritual dimension, suggesting that at the very least, spiritual variables are fundamental determinants of psychological variables, which are, in turn, determinants of physical and social variables.^{3,4} The success of 12-Step programs such as Alcoholics Anonymous,⁵ which rely heavily on a

spiritual approach, provides direct evidence of the potential value of spiritual approaches to medical conditions. A review of the medical literature, particularly the family practice literature, suggests an increasing interest in exploring the relationship between patients' spiritual needs and more traditional aspects of their medical care.⁶⁻¹² Health care professionals involved in programs with strong spiritual traditions, eg, hospice and Alcoholics Anonymous, are among the strongest proponents of addressing the spiritual needs of patients.¹³⁻¹⁵

Despite the increased attention being focused on spirituality and health, research reveals that physicians are often reluctant to explore spiritual issues with their patients.⁶⁻¹⁰ One apparent reason is the perceived lack of a tested, reliable method for spiritual inquiry.^{4,6-8} The Spiritual Well-Being Scale (SWBS),^{16,17} the instrument most commonly used, has been criticized for its psychometric limitations.^{18,19} Furthermore, the SWBS may not address several key components of spirituality,⁸ has a poten-

Submitted, revised, November 21, 1997.

This paper was presented, in part, at the 15th Annual Family in Family Medicine Conference, Society of Teachers of Family Medicine, Amelia Island, Fla, March, 1995. From the Department of Community Health and Family Medicine (R.L.H. and M.A.B.), College of Medicine (D.S.N.), University of Florida, Gainesville, and Carleton College, Northfield, Minnesota (L.K.H.). Requests for reprints should be addressed to Robert L. Hatch, MD, MPH, Department of Community Health and Family Medicine, PO Box 147001, Gainesville, FL 32614.

TABLE 1

Underlying Principles of Spirituality and Supporting References from the Literature

Underlying Principle	Supporting References	SIBS Items that Assess Identified Principles†
Relationship with/belief in a power greater than oneself	4, 15, 24, 25, 26, 27, 28, 29	7, 12, 17, 19
Purpose in life	24, 25, 28, 29	8
Fulfillment from nonmaterial things	4, 23, 24, 25, 26, 27, 28, 29	3, 14, 22
Faith	4, 26, 28	6, 12
Trust	24, 25, 26	5, 19, 21
Identity	24, 29	15, 23
Prayer	4, 29	9, 24
Meditation*	4, 28, 29	16, 25
Spiritual activities with others*	4	5, 26
Appreciation for mystery of life*	4, 24, 28, 29	1
Ability to forgive*	4, 24	10
Ability to apologize*	4, 29	20
Ability to find meaning from suffering*	4, 24, 28	2
Gratitude for life experiences*	29	4
Spiritual belief evolution*	24, 28, 29	11,13

* Not assessed in the Spiritual Well-Being Scale.

† See Appendix for wording of item.

SIBS denotes Spiritual Involvement and Beliefs Scale.

tially narrow focus within the Judeo-Christian religious perspective, and focuses on assessing spiritual beliefs rather than actions. Other available scales, such as the Religious Orientation scale²⁰ and the Index of Religiousness,²¹ assess only religious beliefs and behaviors. Although there is much overlap between religiosity and spirituality, the two are far from synonymous. Spirituality is broader than religiosity, and it is possible for an individual to be spiritual and yet not be religious (eg, an individual who actively applies the principles of a 12-Step program but does not participate in any organized religion). Scales that limit their focus to religion are likely to underestimate the spirituality of certain individuals, thereby threatening their validity as a measure of the broader concept of spirituality.

The goal of this study was to develop the Spiritual Involvement and Beliefs Scale (SIBS), with the aim of making it a more comprehensive and widely applicable instrument for the assessment of spiritual status than any currently available. Such an instrument can facilitate the integration of spirituality with medicine in two ways. First, the scale will provide physicians with a quantitative, credible method of spiritual inquiry with their patients, providing an avenue for integrating spiritual assessment with traditional medicine, much in the way that the mental status examination integrates mental assessment with traditional medicine.²² Second, such a scale would facilitate the scientific study of the role of patient spirituality in medical care, since scientific

inquiry is facilitated by an objective measurement method.

METHODS

INITIAL DEVELOPMENT OF THE SCALE

The authors developed a list of underlying principles of spirituality, attempting to identify principles that are shared by multiple spiritual approaches. Input was sought from individuals who spoke or wrote from the following perspectives: Christianity (diverse perspectives), Judaism, Islam, Hinduism, and other (12-Step approach without adherence to

any traditional religious perspective). Table 1 lists these principles and pertinent references supporting their inclusion.

For each principle, two authors (R.L.H. and D.S.N.) independently wrote several questions designed to assess the belief or action embodied by the principle. In writing questions, an attempt was made to use wording that would be widely acceptable across faiths and to achieve a balance between belief and action items. The authors also tried to follow standard tenets for writing survey questions, such as avoiding questions that refer to multiple discrete concepts and achieving a balance between positively and negatively worded questions. Each draft item was reviewed informally by five or six individuals who were asked to comment on clarity, readability, ease of understanding, and whether they believed the item captured the concept intended by the author. The best items were rewritten and combined to form the instrument. An initial and revised versions of the scale were formally pretested in two different religiously diverse samples ($n = 15$ and $n = 10$), gathering structured feedback regarding understandability, acceptability, applicability, bias, and suggestions for improvements. Revisions based on feedback were made at each stage. The final 26-item version is shown in the Appendix. Table 1 lists the relationship of each item on the final instrument to the above-mentioned underlying principle.

DATA COLLECTION

The finalized SIBS was administered to a total of 83 participants, 50 of whom were patients from a rural family practice. Consecutive patients were asked by the receptionist to complete both the SIBS and the SWBS, with assurances of complete confidentiality. The investigators estimate that approximately 5% of patients declined to participate. Approximately 10% were not asked to participate because the receptionist was occasionally too busy to solicit participation. This was not apparent to the investigators until nearly all of the surveys had been distributed, making it impossible to determine the exact number of patients who either declined or were not asked to participate.

The other 33 participants in this study were family practice professionals who attended a workshop on the development of the SIBS at the March 1995 meeting of the Society of Teachers of Family

Medicine. Sixteen of the 33 who completed the instrument voluntarily provided their names and addresses in order to receive follow-up information (including their score).

To obtain retest data, copies of the SIBS were mailed 7 to 9 months after initial administration to all participants who completed a usable SIBS initially and whose addresses were available. Participants who did not respond within 3 weeks were sent a second mailing. Twenty-two of 44 rural patients returned questionnaires, as did 14 of the 16 professionals who had provided their addresses (60% overall response rate).

DATA ANALYSIS

The following analyses were performed using the Statistical Analysis System (SAS) package. An item analysis was performed for each question, including the mean, standard deviation, and range of response for each item, as well as bivariate correlations between all scale items and between each scale item and overall scores on the SIBS, the SWBS, and the Religious Well-Being (RWB) and Existential Well-Being (EWB) subscales of the SWBS. Concurrent construct validity (ie, how the SIBS compares with an established measure of spirituality) was determined by correlating total score on the SIBS with total score on the SWBS. Internal validity of the SIBS was assessed by determining the coefficient alpha, a measure of the degree to which scale items measure a homogeneous construct or characteristic. Test-retest reliability was determined by correlating the total scale scores on the SIBS at the initial and subsequent administrations. Scores from the SIBS administered during the retesting phase were used only to calculate test-retest reliability, and were excluded from all other analyses. Finally, a factor analysis was used to identify groups of questions that were answered similarly by each person. Any such grouping would suggest that the questions in each group share an underlying theme or factor. The factor analysis was performed using alpha factor analysis as the initial method followed by both orthogonal (varimax) and oblique (promax) factor rotations. The test-retest reliability of each factor was assessed by summing the scores of the items that clustered under each factor and correlating the sum of these items on the initial and subsequent administration.

RESULTS

The scale was well accepted by participants, with only two declining to complete the SIBS after receiving a copy. Three participants completed the SIBS but returned the SWBS without answering any questions. Each item on the scale also appeared to be well received. Of the 77 SIBS and 42 SWBS included in the analysis (see below), only 14 of 2004 SIBS items and 4 of 840 SWBS items were left blank. The pattern of item omissions appeared random with the exception that the last three items of the SIBS were omitted by three participants. These were the only items on the last page of the instrument and may have been overlooked by these participants. Eight of the 83 participants either left the SWBS blank or else failed to answer more than three items on one of the scales. These participants were excluded from the analysis, resulting in 77 participants being included in the SIBS analyses with only 42 included in scale comparisons with the SWBS. Demographic characteristics of the final sample are found in Table 2.

ANALYSIS OF INDIVIDUAL SIBS ITEMS

The mean response for each item ranged from 2.1 to 4.4, with 9 items having a mean greater than or equal to 4.0; standard deviations ranged from .7 to 1.5. Items 8, 12, and 20 (see Appendix for wording of items) demonstrated dramatic clustering of responses at the highest scoring end of the range, with

greater than 90% of responses being a 4 or 5. The range of responses to each item reflected the full-range potential, with the exceptions of items 11, 12, 15, 20, and 23, for which no participant chose the lowest scoring potential answer.

The authors established .40 as the minimal acceptable correlation for individual items with the overall scale. Most items (20 of 26) had a correlation of >0.4 with both the total SIBS score and the Cronbach adjusted total score (Table 3). Items that did not meet the established minimum correlation are addressed in the Discussion section. For each item, the coefficient alpha (ie, measure of scale homogeneity with that item removed) was very high and nearly constant (Table 3), suggesting that each individual item contributed to the overall validity of the instrument.

ANALYSIS OF OVERALL SIBS SCALE

The internal consistency of the SIBS (ie, the degree to which scale items are measuring a single construct or characteristic) was assessed using Cronbach's alpha and yielded an overall coefficient alpha of .92. Test-retest reliability yielded a coefficient of stability of .92 based on 29 usable pairs of tests (7 of the 36 retest comparisons were excluded because of missing answers). Convergent construct reliability was assessed by comparing the total SIBS with total SWBS scores, which yielded a reliability coefficient of .80. Because of missing answers, this was based on 30 of a possible 41 total-score comparisons.

FACTOR ANALYSIS

An orthogonal factor analysis of all scale items using a varimax rotation yielded a six-factor structure. Since factors 5 and 6 each loaded on only one scale item (items 18 and 4, respectively) and factors 5 and 6 yielded low eigenvalues, items 4 and 18 were omitted and the factor analysis was rerun, limiting the factor structure to four factors. The results of this analysis yielded a clear four-factor structure. Table 4 shows which items load under each factor (ie, which items were answered similarly). Eigenvalues for factors 1 to 4 were 9.52, 6.95, 3.55, and 3.98, respectively.

Because of the large number of items loading on two or more factors, an oblique factor rotation was also run, this time using a promax rotation, limiting to four factors and again omitting items 4 and 18.

TABLE 2

Selected Characteristics of Participants

Characteristic	No. (%)
Sex	
Men	33 (43)
Women	44 (57)
Age* (mean \pm SD)	21-84 (49.7 \pm 17.69)
Education level* (y)	
<8	4 (5.2)
9-12	21 (27.3)
12-14	12 (15.6)
15-17	6 (7.8)
>17	32 (41.6)

* Two participants (2.6%) did not disclose this information. SD denotes standard deviation.

TABLE 3

Correlational Findings with Individual Items on the Spiritual Involvement and Beliefs Scale

Item No.*	Bivariate Correlations				Cronbach Correlational Analyses	
	SIBS	Correlation with		EWB	Total Score Correlations†	Alphas If Item Deleted
SWBS	RWB					
1	.36	.07	.14	.01	.29	.92
2	.48	.37	.36	.39	.44	.92
3	.61	.56	.62	.47	.56	.91
4	.29	.62	.46	.64	.22	.92
5	.74	.62	.54	.59	.70	.91
6	.66	.33	.39	.27	.62	.91
7	.82	.70	.72	.61	.80	.91
8	.54	.80	.77	.75	.51	.92
9	.57	.56	.54	.49	.52	.91
10	.80	.66	.56	.65	.77	.91
11	.67	.47	.41	.45	.64	.91
12	.55	.45	.41	.47	.53	.92
13	.48	.07	.02	.18	.41	.92
14	.75	.76	.72	.71	.72	.91
15	.69	.41	.39	.43	.65	.91
16	.69	.56	.52	.56	.65	.91
17	.75	.81	.76	.76	.72	.91
18	.33	.37	.35	.34	.27	.92
19	.82	.71	.70	.65	.80	.91
20	.20	.16	.03	.18	.16	.92
21	.32	.35	.22	.40	.26	.92
22	.62	.42	.43	.38	.58	.91
23	.24	.17	.11	.18	.19	.92
24	.65	.68	.67	.61	.59	.91
25	.56	.42	.39	.42	.50	.92
26	.72	.51	.58	.40	.68	.91
Total‡	1.00	.80	.75	.77		

*See Appendix for wording of item.

† In the Cronbach analysis, the correlation reported is between the score on the individual item and the total score from all items on the scale except the item that is being correlated. Therefore, the correlations reported in this column differ from the correlations presented in column 1.

‡Coefficient alpha=.92.

SIBS denotes Spiritual Involvement and Beliefs Scale; SWBS, Spiritual Well-Being Scale; RWB, Religious Well-Being; EWB, Existential Well-Being. RWB and EWB are subscales of SWBS.

Designed to assess the degree of association between factors, this analysis revealed a clear four-factor structure nearly identical to that found in the orthogonal rotation (Table 4), with overlap between what is measured by factors 1 and 2, and factors 1 and 3 (Table 5). Coefficient alphas for factors 1, 2, 3, and 4 were .98, .74, .70, and .51, respectively, suggesting that the factors decrease sequentially in the degree to which they capture a homogeneous facet of overall spirituality. The test-retest reliability for each factor (based on the sum for the items that load under each factor) was 0.91, 0.88, 0.88, and 0.64 for factors 1 through 4, respectively.

As one would expect, items that cluster under the same factor tended to share common content. Each factor was given a name that captures part or all of this common content. Items clustering under factor 1 (labeled *External/Ritual*) typically addressed spiritual activities/rituals or were consistent with belief in an external power. Factor 2 (*Internal/Fluid*) included both items that refer to evolving beliefs and many items that focus on internal beliefs and growth. Both items dealing with meditation clustered under factor 3 (*Existential/Meditative*), as did many items addressing more existential issues. Finally, items dealing with humility and application of spiritual principles in daily activities clustered under factor 4 (*Humility/Personal Application*).

Because items 4 and 18 appeared to contribute little to the overall instrument, the correlation analysis was repeated after deleting responses to items 4 and 18. After deleting these items, correlation of the total score on the SIBS with the SWBS was .79 (a negligible drop from .80), the test-retest correlation

remained .92, and the coefficient alpha reliability coefficient remained .92.

DISCUSSION

The findings support the SIBS as a pragmatic, reliable, and valid measure of spirituality. The item content suggests good face validity and the correlation of .80 with the SWBS supports the SIBS as a unique and valid measure of spirituality. Convergent validity correlations should reach approximately .80 but not exceed this by too much,

TABLE 4

Factor Analysis of Items on the Spiritual Involvement and Beliefs Scale, by Factor and Scale Item Number

	Orthogonal Rotation Factor Loadings*				Oblique Rotation Factor Loadings*			
	F1	F2	F3	F4	F1	F2	F3	F4
3†		1	2	20	3	1	2	11
5		2	8	21	5	2	8	20
6		5	9	22	6	5	9	21
7		6	16	23	7	6	16	22
9		8	24		9	7	17	23
10		11	25		10	8	24	
12		13	26		11	10	25	
14		14			12	11	26	
17		15			14	13		
19		16			15	14		
22		19			16	15		
24					17	16		
26					19	19		
					19	19		
					22	26		
					24			
					26			

NOTE: Numbers under factor headings indicate the item number on the Spiritual Involvement and Beliefs Scale. Wording for these items can be found in the Appendix.

*Factor names: F1 - External/Ritual; F2 - Internal/Fluid; F3 - Existential/Meditative; F4 - Humility/Personal Application.

†Criteria for item loading under a factor is a correlation coefficient $\geq .40$.

as this would indicate a virtual replication of an already existing scale.³⁰

ADVANTAGES OF THE SIBS

Compared with other available instruments, the SIBS appears to have certain advantages. It is inclusive, assessing aspects of spirituality not covered by other instruments, yet it is easily administered and scored. Furthermore, the SIBS uses “generic” wording whenever possible to avoid as much cultural and religious bias as possible. The authors acknowledge that it is impossible to develop a scale that avoids all bias and that is equally applicable across all religious traditions. However, based on the pretesting and formal testing described above, the SIBS appears to be well accepted and easily understood by people from several different spiritual backgrounds.

The SIBS also assesses spiritual involvement and activity, not just beliefs. The authors hypothesize that an individual’s actions are very important indicators of their spiritual status, perhaps even more important than their beliefs. If this hypothesis is correct, a scale that includes questions regarding spiritual actions should offer distinct advantages over scales that do not. By including spiritual activities, the scale risks capturing what has been termed “extrinsic” religious orientation,²⁰ namely, self-serving, empty participation in religious activities and rituals. In creating the SIBS, the authors were cognizant of this risk, and included few items that examined only frequency of religious activities. The majority of the SIBS items that address actions focus on either the internal effects of these actions or the application of spiritual principles in daily life. The authors expect that these particular items will actually help the scale capture intrinsic orientation,²⁰ ie, that which is truly spiritual. The success of the SIBS in this regard awaits the results of future studies, including concurrent testing with scales designed to discriminate between intrinsic and extrinsic orientation.

ACCEPTABILITY OF INSTRUMENT

In both the pretesting and formal testing stages, the scale was well received by study participants. Only one participant declined to complete it, and no participants reported any difficulty understanding or answering the questions. The reading skills level of the SIBS ranges from approximately a fourth-grade level on some items to a high school level on others

TABLE 5

Factor Correlations, Oblique Rotation				
	F1	F2	F3	F4
F1	1.0	.48	.31	.24
F2	—	1.0	.16	.16
F3	—	—	1.0	.01

Four distinct aspects of spirituality have the following factor names: F1 - External/Ritual; F2 - Internal/Fluid; F3 - Existential/Meditative; and F4 - Humility/Personal Application.

(Henry T. Fillmer, PhD, personal communication, November 14, 1996). This estimate should be viewed with caution, since techniques for determining the reading level of questionnaires have not been clearly established.

ITEM ANALYSIS

An analysis of participants’ answers to each item showed a full range of responses to most questions, indicating the desirable presence of response variability between individuals. Several item means were higher than optimal, suggesting the possibility of a “ceiling” effect (ie, a restricted response range at the higher end of the scale) for these items. The possibility that some items on the SIBS may be limited by a ceiling effect needs to be further researched and addressed, as necessary, possibly by changing to a 7-point Likert-type scale or by deleting items with limited range of response, such as item 12.

Certain items appear to contribute little to the overall validity of the SIBS. Items 1, 4, 18, 20, 21, and 23 have decidedly lower correlations with the total SIBS scale (see Appendix for wording of items). These correlations fell further when the total score was corrected by subtracting the score for each individual item (ie, the Cronbach correlation). Furthermore, the factor analysis showed that items 4 and 18 do not cluster under any of the four identified factors, suggesting that these two items are dissimilar to all other scale items. The authors plan to delete items 4 and 18 from the SIBS scale. Statistical analyses on the SIBS after omitting items 4 and 18 suggest that the reliability and validity of the instrument remains very strong despite this modification. Item 1 will be retained because of its good fit within the factor structure. Items 20, 21, and 23 will be retained because they contribute substantially to the fourth factor (*Humility/Personal Application*).

STABILITY AND SENSITIVITY

The SIBS demonstrates excellent stability over time, with a test-retest reliability coefficient of .92 over a 7- to 9-month interval, suggesting that an individual's score on the SIBS is highly reproducible. That the scores were stable over such a long interval suggests that most individuals' spiritual beliefs remained relatively constant over this time. In the authors' experience, most change in spiritual belief comes in infrequent but relatively dramatic bursts ("spiritual moments" or "awakenings"), superimposed on a background of very gradual drift. If this is the case, most individuals' scores would be quite constant over a 7- to 9-month period. An alternative interpretation is that the scale may be relatively insensitive to change in spiritual beliefs. The scale's sensitivity would be crucial if it is to be used to assess the impact of programs designed to change participants' spiritual status, such as alcoholism treatment programs. However, the instrument's ability to discriminate between individuals who are strongly spiritual and those who are less so would be more important than its sensitivity in studies that examine the relationship between spiritual status and health. The wide range of scores received by subjects in this study and the stability of these scores suggests that the SIBS has the potential to discriminate between individuals who are strongly spiritual and those who are less so. The utility of the SIBS for each application will become clearer after future studies assess its sensitivity.

VALIDITY FOR FOUR-FACTOR STRUCTURE

The factor analysis indicated that participants tended to answer certain groups of questions similarly, suggesting that the SIBS measures four somewhat distinct aspects of spirituality. The similarities in content among items that cluster together under each factor provide further validity for the four-factor structure. The validity of factors 1, 2, and 3 is further supported by the high test-retest correlations and Cronbach's alpha correlations for each. Factor 4 had a lower test-retest reliability and, combined with a lower Cronbach's alpha coefficient, raises some concerns about its validity. If future research confirms this four-factor structure, it may be possible to use the items in each factor as subscales to investigate the association between each factor (aspect of spirituality) and health status.

STUDY LIMITATIONS

Though the present SIBS findings are quite promising, the study has several limitations. The sample may be biased because the patients who participated were not a truly consecutive sample. Test-retest data may be skewed for several reasons. Only 50% of patients completed the retest, and although 14 of the 16 workshop participants who were asked completed retests, this represents only 42% of all workshop participants. Finally, the sample is relatively small, and with the exception of educational background, it contains little diversity. This raises questions about the generalizability of the findings. The measures of reliability and validity need to be replicated using larger samples that reflect greater religious and demographic diversity.

FUTURE STUDY

The stability of the SIBS as a spirituality measure needs to be assessed using different time intervals between scale administrations, with larger samples and more complete follow-up. The construct validity of the SIBS must also be assessed by comparing it with other instruments, both similar to and different from it. In future studies, the authors also hope to identify and delete the items that are the least useful and most difficult to comprehend, with the goal of producing a 1-page instrument with a lower reading skills level but that retains the desirable qualities of the entire scale. The availability of such an instrument, it is hoped, will facilitate research into the relationship between spirituality and health, and offer a mechanism by which a spiritual dialogue between patient and physician may be rationally introduced.

ACKNOWLEDGMENTS

This research was funded, in part, by a grant from both the Florida and American Academy of Family Physicians Foundations, with a matching grant from the University of Florida Foundation.

Additionally, funding was received through a grant from the University of Florida Division of Sponsored Research.

The authors wish to thank John Dixon, PhD, who provided invaluable assistance with statistical analysis of the data, and Henry T. Fillmer, PhD, Department of Education, University of Florida, who analyzed the reading skills level of the Spiritual Involvement and Beliefs Scale.

REFERENCES

- Engel GL. The need for a new medical model: a challenge for biomedicine. *Science* 1977; 196:129-36.
- Engel GL. The clinical application of the biopsychosocial model. *Am J Psychiatry* 1980; 137:535-44.
- Hiatt JF. Spirituality, medicine and healing. *South Med J* 1988; 79:736-43.
- Kuhn CC. A spiritual inventory of the medically ill patient. *Psychiatr Med* 1988; 6(2): 87-100.

5. Pisani VD, Fawcett J, Clark DC. The relative contributions of medical adherence and AA meeting attendance to abstinent outcome for chronic alcoholics. *J Stud Alcohol* 1993; 54:115-9.
6. Maugans TA, Wadland WC. Religion and family medicine: a survey of physicians and patients. *J Fam Pract* 1991; 32:210-13.
7. Daaleman TP, Nease DE. Patient attitudes regarding physician inquiry into spiritual and religious issues. *J Fam Pract* 1994; 39:564-8.
8. McKee, DD, Chappel JN. Spirituality and medical practice. *J Fam Pract* 1992; 35:201-8.
9. Koenig HG, Bearon LB, Dayringer R. Physician perspectives on the role of religion in the physician-older patient relationship. *J Fam Pract* 1989; 28:441-8.
10. King DE, Bushwick B. Beliefs and attitudes of hospital inpatients about faith healing and prayer. *J Fam Pract* 1994; 39:349-52.
11. Sherril KA, Larson DB. Adult burn patients: the role of religion in recovery. *South Med J* 1988; 81:821-5.
12. Byrd RC. Positive therapeutic effects of intercessory prayer in a coronary care unit population. *South Med J* 1988; 81:826-9.
13. Morgan PP. Spirituality slowly gaining recognition among North American psychiatrists. *Can Med Assoc J* 1994; 150:582-5.
14. Carroll S. Spirituality and purpose in life in addiction recovery. *J Stud Alcohol* 1991; 54: 297-301.
15. Millison MB. Spirituality and the caregiver: developing an underutilized facet of care. *Am J Hospice Care* 1988; 5:37-44.
16. Paloutzian R, Ellison C. Loneliness, spiritual well-being and the quality of life. In: Peplau L, Perlman D, eds. *Loneliness: a sourcebook of current theory, research and therapy*. New York: John Wiley & Sons, 1982: 224-37.
17. Ellison CW, Paloutzian RF. *The spiritual well-being scale*. Nyack, NY: Life Advance, Inc, 1982.
18. Ledbetter MF, Smith LA, Fischer JD, Vosler-Hunter WL, Chew GP. An evaluation of the construct validity of the Spiritual Well-Being Scale: a confirmatory factor analytic approach. *J Psychol Theol* 1991; 19(1):94-102.
19. Ledbetter MF, Smith LA, Vosler-Hunter WL, Fischer JD. An evaluation of the research and clinical usefulness of the Spiritual Well-Being Scale. *J Psychol Theol* 1991; 19(1):49-55.
20. Allport GW, Ross JM. Personal religious orientation and prejudice. *J Pers Soc Psychol* 1967; 5(4): 432-43.
21. Zuckerman DM, Kasl SV, Ostfeld AM. Psychosocial predictors of mortality among the elderly poor. The role of religion, well being, and social contacts. *Am J Epidemiol* 1984; 119:410-23.
22. Braverman ER. The religious medical model: holy medicine and the spiritual behavior inventory. *South Med J* 1987; 80:415-25.
23. Webster's third new international dictionary of the English language, unabridged. Springfield, Mass: Merriam-Webster, 1981:2198-9.
24. Heriot CS. Spirituality and aging. *Holistic Nurse Pract* 1992; 7(1):22-31.

Appendix

The Spiritual Involvement and Beliefs Scale

Please answer the following questions by checking your response.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. In the future, science will be able to explain everything.	—	—	—	—	—
2. I can find meaning in times of hardship.	—	—	—	—	—
3. A person can be fulfilled without pursuing an active spiritual life.	—	—	—	—	—
4. I am thankful for all that has happened to me.	—	—	—	—	—
5. Spiritual activities have not helped me become closer to other people.	—	—	—	—	—
6. Some experiences can be understood only through one's spiritual beliefs.	—	—	—	—	—
7. A spiritual force influences the events in my life.	—	—	—	—	—
8. My life has a purpose.	—	—	—	—	—
9. Prayers do not really change what happens.	—	—	—	—	—
10. Participating in spiritual activities helps me forgive other people.	—	—	—	—	—
11. My spiritual beliefs continue to evolve.	—	—	—	—	—
12. I believe there is a power greater than myself.	—	—	—	—	—
13. I probably will not reexamine my spiritual beliefs.	—	—	—	—	—
14. My spiritual life fulfills me in ways that material possessions do not.	—	—	—	—	—
15. Spiritual activities have not helped me develop my identity.	—	—	—	—	—
16. Meditation does not help me feel more in touch with my inner spirit.	—	—	—	—	—
17. I have a personal relationship with a power greater than myself.	—	—	—	—	—
18. I have felt pressured to accept spiritual beliefs that I do not agree with.	—	—	—	—	—
19. Spiritual activities help me draw closer to a power greater than myself.	—	—	—	—	—

Please indicate how often you do the following:

	Always	Usually	Sometimes	Rarely	Never
20. When I wrong someone, I make an effort to apologize.	___	___	___	___	___
21. When I am ashamed of something I have done, I tell someone about it.	___	___	___	___	___
22. I solve my problems without using spiritual resources.	___	___	___	___	___
23. I examine my actions to see if they reflect my values.	___	___	___	___	___
24. During the last WEEK, I prayed. . . (check one)					
___ 10 or more times.					
___ 7-9 times.					
___ 1-3 times.					
___ 4-6 times.					
___ 0 times.					
25. During the last WEEK, I meditated. . . (check one)					
___ 10 or more times.					
___ 7-9 times.					
___ 4-6 times.					
___ 1-3 times.					
___ 0 times.					
26. Last MONTH, I participated in spiritual activities with at least one other person. . . (check one)					
___ more than 15 times.					
___ 11-15 times.					
___ 6-10 times.					
___ 1-5 times.					
___ 0 times.					

SCORING INSTRUCTIONS

For positively worded items, ie, items where answers indicating agreement seem more spiritual (item numbers 2, 4, 6, 7, 8, 10, 11, 12, 14, 17, 19, 20, 21, 23): Strongly agree = 5; Agree = 4; Neutral = 3; Disagree = 2; Strongly disagree = 1.

For negatively worded items, where agreement would seem less spiritual (item numbers 1, 3, 5, 9, 13, 15, 16, 18, 22): Strongly agree = 1; Agree = 2; Neutral = 3; Disagree = 4; Strongly disagree = 5.

For items 24 - 26: Highest frequency category = 5; Next highest category = 4; Middle frequency = 3; Next to lowest frequency = 2; Lowest frequency = 1.

Note that this version of the scale was used only in this preliminary study. Those planning to use the scale for clinical or research purposes are encouraged to contact Dr Hatch to obtain an updated version and pertinent reliability and validity data.