Original Article

DOI: 10.4274/haseki.galenos.2023.9053
Med Bull Haseki 2023;61:215-223

Validity and Reliability of the Turkish Version of the Physicians Spiritual Well-Being Scale

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Abstract

Aim: This study was undertaken to translate and adapt the Physician's Spiritual Well-Being Scale into the Turkish language and investigate its validity and reliability for Turkish physicians.

Methods: This methodological study was conducted on a sample of 162 physicians at different public and private institutes in Istanbul province, Turkey, between February and March 2022. Principal Component Analysis was applied to the data of the sample group to reveal the structural similarity between the original form and the Turkish version of the scale. The scale's reliability was confirmed by evaluating Cronbach's alpha's internal consistency.

Results: The factor analysis confirmed the four original factors of the PSpWBS: "self-esteem", "care for the patient", "interpersonal relationships", and "meaningful life". The total explainable variance was 54%. Factor analysis showed that the internal consistency Cronbach alpha value for the scale was between 0.645 and 0.889.

Conclusion: The Physician's Spiritual Well-Being Scale has satisfactory reliability and validity and could be used for the assessment of the spiritual well-being of a physician.

Keywords: Spiritual well-being, physician's spiritual well-being, cross-cultural adaptation, reliability, validity

Introduction

The concept of burnout, one of the most frequently used words today, was used in the 1970s in the USA to describe the emotional and physical exhaustion experienced by employees working in customer service. Burnout refers to the individual's perception of exhaustion, depersonalization, and a decrease in the will to succeed (1). Burnout is quite common in the health professions (2). Burnout, which is already relatively high in the health professions, is extremely high among physicians. It is probably inevitable for a physician to experience temporary burnout throughout his or her professional career (3).

We do not see a complete definition of physician health in the literature. To support physician health, there are efforts and publications aimed at increasing spirituality and self-reflection (4). In addition, workshops, conferences, and other multidimensional programs have been aimed at supporting this issue (5,6). However, well-being is a different concept, and if we do not know what this concept is, we will also not be able to tell if all these studies have worked. Many people who deal with physician health within the framework of burnout attribute being healthy to whether they have burnout. However, this understanding is as inadequate as defining health as the absence of disease. Applying this general definition of health to physicians is also insufficient due to the internal contradiction of balancing their personal lives with being a physician. The physician-patient relationship is significant to the provision of health services, and there are many studies showing the importance of this (7). From the receipt of the patient's medical history to the creation of a treatment plan, the physician's relationship with his patient is based on effective communication. In patient-physician encounters, both verbal and nonverbal forms of communication affect effective communication.

Presented in: 8th Çukurova International Scientific Research Congress from 15 to 17, April 2022.

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Received: 21.01.2023 **Accepted:** 12.08.2023

Although most of the communication in these interactions involves sharing information about diagnosis and treatment options, most doctors agree that these encounters are related to the patient's psycho-social healing connection or treatment (8).

Physician-patient communication affects the behavior and attitudes of the patient regarding disease and increases compliance with treatment (9,10). Health services can be provided in public, private, and university healthcare institutions, and there are differences between work-related stressors in these institutions. These differences, in turn, can lead to differences in physicians' well-being. In addition, it is not well known how some work-related psychosocial factors, such as role ambiguity and patient or teamwork-related problems, affect physicians' spiritual well-being. However, studies have shown that patient-related stress and role ambiguity may be related to physicians' well-being (11). Little is known about the role of these specific psychosocial stressors in the well-being differences between physicians working in different health sectors, such as primary and secondary healthcare and the private sector. Even though there are reasonable efforts to enhance well-being, reduce psychosocial distress and health problems, and increase the ability to work, physicians must show the behavior of responding to the needs of patients that replaces their interests, and this is a professional rule (12). From this perspective, they receive training to learn self-sacrifice as a part of their professional identity. This situation accustoms physicians to the idea that thinking about their patients health is secondary (13). If well-being means balancing work and personal life, it may not be possible for physicians to achieve well-being (14).

Physicians' well-being affects their attitudes toward their patients, the quality of care, and patient-physician communication (15). For the communication between the doctor and the patient to be healthy, many conditions depend on the patient and the doctor. One of these conditions is that the physician is in a state of spiritual well-being.

There are many studies on spiritual well-being, but these studies generally focus on patients' spiritual well-being and the relationships between spiritual well-being and coping with diseases. Spiritual well-being effectively affects individuals' physical and mental health (16). However, physicians also play a critical role in a patient's ability to cope with the disease. To establish a healthy patient-physician relationship and communication, the patient and the physician must have spiritual well-being. Burnout, job satisfaction, and physicians' mental health have been examined in patient-physician communication, but the physician's well-being has not been adequately studied. The well-being of the physician also affects the well-being of the patient. Patients need a healthy physician with spiritual well-being. It should not be forgotten that physicians are only humans and cannot control the life or death of their patients. However, it is expected that physicians who care for terminally ill patients will be able to do this. Even under this pressure and expectation, physicians should pay attention to their spiritual well-being and burnout. In studies conducted in Turkey, concepts such as burnout, depression, and anxiety have been extensively studied by researchers. In studies conducted in Turkey, concepts such as burnout, depression, and anxiety among physicians have been intensively investigated by researchers. However, the concept of spiritual well-being, that is, looking at their health from a holistic perspective, has been neglected. This study was undertaken to translate and adapt the Physician's Spiritual Well-Being Scale (PSpWBS) developed by Fang et al. (17) into the Turkish language and investigate its validity and reliability for Turkish physicians.

Methods

Compliance with Ethical Standards

Ethical approval was obtained from the Ethical Committee of Istanbul Sabahattin Zaim University (date: 28.01.2022, decision no: 2022/01). Consent was obtained from the study participants before the interview. The research process was conducted in accordance with the principles of the Declaration of Helsinki.

Sample Group

This methodological study examined the reliability and validity of PSpWBS. This study was conducted at health institutions in the Istanbul province of Turkey. A total of 162 physicians working in family medicine, public training and research hospitals, public service hospitals, university hospitals, community health centers, and private hospitals participated in the research from February to March 2022. Eligible participants were physicians who graduated from medical school. Physicians working in Istanbul province who agreed to participate in the study were included in the sample. The study used a convenience sampling strategy to provide easier access to participants when selecting participants from different organizations (18). The physician chief and other physicians recognized by the researchers were contacted via WhatsApp and phone. We prepared online questionnaire forms using Google Forms and distributed them to the physician chief and physicians through WhatsApp and e-mail. On the first page of the online survey, physicians were informed about the research, given contact information for the research team, and presented with an informed consent form.

Many different approaches are put forward in the literature to determine the sample size. The general validation study approach involves collecting 5 to 10 subjects for each question on the scale (18-22). Physician's Spiritual Well-Being Scale has a total of 25 items. In determining the sample size, the recommended sample size for methodological research is 125 physicians, which is at least five times the number of scale items (25 items) (23). Until this number was reached, all physicians who met the criteria were included in the study. As a result, 162 physicians were included in the study. This sample size provided more than the minimum requirement of five participants per item needed for psychometric testing (20,22). Accordingly, the sample size was considered adequate. Data were obtained by the online survey method. The personal information and scale forms applied to physicians were sent to the participants via Google Forms. Informed consent was obtained on the first page of the online survey. After a sufficient sample size was reached in the study, the application was terminated. Each participant took approximately 10 minutes to answer the data collection form.

Data Tools

The questionnaire form to be used in this study consists of two parts. The first part used the "Personal Information Form" created by the researcher and asked for the participants' demographic information. The second part used PSpWBS developed by Fang et al. (17).

Personal Information Form: It was created by the researcher and consisted of questions questioning the characteristics of physicians (gender, professional working years, marital status, specialization, academic title, managerial position, institution type, etc.).

Physician's Spiritual Well-Being Scale: The PSpWBS is a measurement tool developed by Fang et al. (17) to determine a physician's spiritual well-being. In the study of adaptation to Turkish, the name of the scale was used as "Physician's Spiritual Well-Being Scale", which has the same meaning as the original name because it is thought that it will reflect the content of the scale well. In the original 25-question scale, five questions were removed as a result of the analysis. Physician's Spiritual Well-Being Scale consists of 20 questions and four factors: "self-esteem", "care of the patient", "a meaningful life", and "interpersonal relationship". The participants evaluated the scale items with the help of a five-degree Likert scale (1= never to 5= always). Cronbach's alpha internal consistency of the original scale for each factor was between 0.625 and 0.794; Cronbach's alpha reliability coefficient of the overall scale was 0.864 (17). Accordingly, the scale has satisfactory reliability and validity and is the basis for assessing a physician's spiritual well-being.

Procedures

There is no universal agreement about adapting an instrument for use in a different cultural setting (24). However, there is a consensus that it is not appropriate to translate a questionnaire and use it in another linguistic context (25). Studies may have an extensive linguistic translation process, but more is needed to ensure construct validity and reliability (26). Similar steps have been proposed for scale adaptation studies in this context (24,27). To adapt the PSpWBS into Turkish, diverse methods were used to ascertain content, semantic, and technical equivalence. The essence of semantic equivalence is that the meaning of each item remains the same after translation into the target language (28). Back translation is the most common and highly recommended procedure for establishing semantic equivalence (29,30). In this study, the translation-retranslation procedure suggested by Brislin (1986)was followed in adapting PSpWBS to Turkish (29).

Translation and Structure Validity

This stage was based on the method proposed by Brislin (29) for adapting tools developed in a language other than the target language. This method involves a process of initial translation into the target language, evaluation of the initial translation, back translation into the source language, re-evaluation of the back translation, and consultation with experts.

Phase I: First Translation: First, a total of three people, including two native Turkish-speaking faculty members who are fluent in English and have conducted scientific research in the field of spiritual well-being and one native Turkish-speaking person from the field of English linguistics, translated the scale items from English, the source language, into Turkish, the target language.

Phase II: Synthesis of Translations: In the second stage, similar and different translations of the three different translations were combined to form a single form. This form with similar and different Turkish translations was sent to three faculty members who conducted research in the spiritual well-being field, experienced scale adaptation, and had a good command of English and were asked to select the Turkish translations that best represented the English original. The translations were reviewed for consistency, comprehensibility, word and sentence structures, and cultural appropriateness. After some changes were made as a result of the first evaluation, a consensus was reached.

Phase III: Back Translation: At this stage, all items agreed upon in the previous stage were sent to two foreign language experts different from the ones who did the first translation for back translation from Turkish to English, whose native languages were Turkish and English.

Neither the re-translator was familiar with the concepts under investigation nor had a medical background. This would increase the possibility of avoiding information bias and revealing different meanings of the items in the translated scale (26). This process validated the tool's content and identified inconsistencies or conceptual mistakes.

Phase IV: Synthesis of Back Translations: At this stage of the translation process, two experts who are native Turkish speakers fluent in English and experienced in adapting measurement tools examined all items in the first three stages in detail. These two experts determined the Turkish translations that best expressed the items in the original language, discussed all items until consensus was reached, and finalized the scale items. As a result of this process, it was decided to use the final version of the scale in the current study.

Phase V: Testing of the Pre-Final Version: To test the comprehensibility of the scale items for which language and content validity were ensured, the instrument was administered as a pre-test to twenty physicians with characteristics similar to those of the sample group in this study. In the pre-test, the participants were asked to explain each item, and notes were taken by the researchers on whether the participants understood the item referred to. In the preliminary study, the researchers made final semantic edits to the compiled version in line with the responses. The Turkish scale was finalized after discussion with three physicians regarding the physician's spiritual well-being.

Statistical Analysis

This study used IBM SPSS Statistics for Windows Version 24.0 for data analysis. Expert opinions were taken for content validity. In the current study, principal component analysis (PCA) was used, and the criteria for selecting factors included the eigenvalue (>1), at least 5% of the explainable variance. For the reliability analysis of the scale, internal consistency measurements (Cronbach's alpha coefficient) and item-total correlation measurements were performed. The significance level was set at = 0.05. Before PCA, the Kaiser-Meyer-Oklin (KMO) sampling adequacy test and Bartlett's test of sphericity were used to test the factorability of the item correlation matrix. Items with factor loadings greater than 0.40 were included in the evaluation (31).

Results

Characteristics of Participants

After the translation phase, the validity and reliability study of the scale was carried out with a total of 162 physicians, 97 (59.9%) male and 65 (40.1%) female. The mean age of the physicians was 43.82 years (standard deviation=10.22) ranging from 24 to 66 years. Characteristics of participants are shown in Table 1.

Construct Validity

The final version of the scale adapted into Turkish was tested on a main sample of 162 physicians. Expert opinions were obtained to adapt PSpWBS to Turkish culture and to ensure that Turkish physicians could easily understand it. No changes were made to the items by expert opinions.

Table 1. Distribution of physicians according to characteristics (n=162)

	$\bar{x}$	SD
Age	43.82	10.224
Professional working years	18.63	10.447
	N	**%**
Gender		
Female	65	40.1
Male	97	59.9
Marital Status		
Married	135	83.3
Single	27	16.7
Academic title		
General practitioner	43	26.5
Assistant physician	13	8
Specialist physician	78	48.1
Faculty member	28	17.3
Specialization		
Basic medical sciences	9	5.6
Internal medicine sciences	64	39.5
Surgical medical sciences	45	27.8
No response	44	27.1
Managerial position		
Yes	44	27.2
No	118	72.8
Institution type		
Family health centers	18	11.1
Public service hospitals	50	30.9
Public education and research hospital	43	26.5
University hospitals	22	13.6
Class A private hospital	21	13
Non-class A private hospital	8	4.9
Have you been physically or verbally assaulted by patients?		
Yes	116	71.6
No	46	28.4
Has anyone died around you recently?		
Yes	66	40.7
No	96	59.3

$\bar{x}$: Mean, SD: Standard deviation

First, confirmatory factor analysis (CFA) was conducted on the scale adapted into the Turkish. According to the CFA results, acceptable fit values could not be reached, and it was seen that the factor loadings of many items were low and not significant. For this reason, the factor structure of the Turkish form was analyzed using PCA (32) as in the original source. The analysis, one of the oblique rotation techniques, the "direct oblimin technique," was preferred as a factor rotation technique.

Before PCA, KMO sampling adequacy was used to test the factorability of the item correlation matrix. In the current study, the KMO coefficient was found to be 0.84, and the calculated value shows that the sampling adequacy is "very good" (KMO=0.80-0.89) (28). The observed KMO value of 0.84 is within the recommended KMO value range. Therefore, the sample size in the study is sufficient. Bartlett's Test of Sphericity was conducted to examine whether the correlation matrix was different from the unit matrix. Bartlett's Test of Sphericity was found significant (χ^2=1305.231, p<0.001). Bartlett's Test of Sphericity is used to test whether the correlation matrix is a unit matrix with all diagonal terms equal to 1 and off-diagonal terms equal to 0 (33). These values indicate that the data set is suitable for PCA. Principal component analysis was applied to the data belonging to the sample group to reveal the structural similarity between the original form and the Turkish version of the scale. After PCA, items with factor loadings below 0.40 and items with high factor loadings in more than one factor were removed from the scale. Factor analysis using PCA revealed four factors with eigenvalues >1.0. Factors with eigenvalues higher than 1 were considered in determining the factors. In this context, five items (items 11, 17, 20, 21, 23) were removed from the scale, and the distribution of the remaining 20 items to the factors is shown in Table 2.

The current study examined the four-factor structure in the original research with the PCA, and the four-factor structure of the scale was confirmed; "care for patients", "a meaningful life", "interpersonal relationships" and

Table 2. Factor loadings, eigenvalues, and explained variance values after PCA

		Corrected item-total correlation	Factor 1	Factor 2	Factor 3	Factor 4
Q3	I think my existence has meaning.	0.549	0.828			
Q4	I feel that I am in optimal conditions to help my patients.	0.587	0.772			
Q1	I believe that I am capable of promoting growth in others.	0.643	0.763			
Q10	I consider that I am in a state of spiritual well-being.	0.650	0.762			
Q5	I believe comprehensive life experiences enrich my life.	0.618	0.745			
Q14	I can stabilize myself through my beliefs or religion.	0.632	0.589			
Q15	I see challenges as an opportunity to improve myself.	0.613	0.554			
Q18	Eventually everyone will die one day, so I want to appreciate every day I live.	0.585	0.524			
Q25	Taking care of patients enables me to develop self-esteem and value.	0.669	0.486			
Q6	I am not sure about the significance of taking care of terminally ill patients.	0.155		0.715		
Q19	I find it difficult to take care of my patients' spiritual needs.	0.493		0.682		
Q2	I find doctor-patient communication difficult.	0.396		0.543		
Q13	I find it difficult to take care of my patients' spiritual needs.	0.523		0.455		
Q12	When I am in a dilemma. I can share it with others.	0.271			0.685	
Q9	I find it difficult to manage my patients' physical problems.	0.318			0.660	
Q24	I can put myself in others' shoes and think for them.	0.213			0.570	
Q7	I want to explore issues that are related to myself.	0.205			0.427	
Q8	I can handle death easily.	0.256				0.798
Q16	When I think of my own death. I feel confused and uncomfortable.	0.308				0.705
Q22	I know how to deal with the sense of loss when my patient dies.	0.210				0.525
Eigenvalue			6.002	1.784	1.598	1.35
Explained variance			0.30	0.09	0.08	0.07

Factors: (1) self-esteem; (2) Care for patients; (3) interpersonal relationship; (4) a meaningful life

"self-esteem." The factor loadings of the scale items are between 0.427 and 0.828. The first factor includes nine items and the factor loadings are between 0.486 and 0.828. The explainable variance for the first factor was 30%, which included questions 1, 3, 4, 5, 10, 14, 15, 18, and 25. The content of the questions had to do with belief in oneself and self-esteem. Therefore, the first factor was named "self-esteem" as in the original scale. The second factor included four items, and the factor loadings were between 0.455 and 0.715. The explainable variance for the second factor was 9%, which included questions 2, 6, 13, and 19. These were related to "care for patients," therefore, the second factor was named 'care for patients' as in the original scale. The third factor included four items and the factor loadings were between 0.427 and 0.685. The explainable variance for the third factor was 8%, which included questions 7, 9, 12, and 24. These concerns interpersonal interaction and sharing. Therefore, the third factor was named "interpersonal relationship," as in the original scale. The fourth factor included three items, and the factor loadings were between 0.525 and 0.798. The explainable variance for the fourth factor was 7%, which included questions 8, 16, and 22. The content of the questions had to do with life philosophy, meaning of life, and life and death studies. Therefore, the fourth factor was named "a meaningful life," as in the original scale. The total variance explained for the four factors of PSpWBS was 54%. Factor loadings above 0.40 of items for the scale are presented in Table 2.

Item Analysis

Table 2 shows the corrected item total correlation and factor loadings. In the current study, the corrected item-total correlation was between 0.205 and 0.669, except for one item. The corrected item total correlation for one item is 0.155 (Q6). Since the factor loading of this item was 0.715 and the correlation coefficient was not negative, it was deemed appropriate not to remove it from the scale. The factor loadings of the scale items are between 0.427 and 0.828 (Table 2).

Table 3 shows the t-test results of physician's spiritual well-being according to upper and lower 27% groups. There was a significant difference between the scores of physicians in the lower and upper 27% percentiles of the four factors and the general scale [t(43)= -17.914, -15.860, -13.811, -18.992 and -14.485, p<0.001]. The score differences were in favor of those in the upper 27% (Table 3).

Internal Consistency

Table 4 shows the Cronbach alpha internal consistency coefficients of the factors and the correlation coefficients between the factors. In scale development studies, Cronbach's alpha analysis is used to test the internal consistency of items using Likert scale (34). For research scales, a Cronbach's alpha value below 0.60 is considered as "unacceptable"; between 0.60 to 0.65 "undesirable"; between 0.65 to 0.70 "minimally acceptable"; between 0.70 to 0.80 "noteworthy"; between 0.80 to 0.90 "very good"; and above 0.90 "the researcher should consider shortening the scale" (35). This study revealed Cronbach's alpha value as the sub-factors between 0.645 and 0.889. The internal consistency coefficient for the overall scale was 0.857 (Table 4). This value signifies the high reliability of the scale items. Although reliability can set

Table 3. T-test results of physician's spiritual well-being sub-factors according to upper and lower 27% groups (n=44)

	Groups	Mean	SD	df	t
Self-esteem	Lower 27%	2.46	0.45	43	-17.914**
	Upper 27%	4.39	0.28		
Care for patients	Lower 27%	2.16	0.35	43	-15.860**
	Upper 27%	3.91	0.40		
Interpersonal relationship	Lower 27%	2.97	0.33	43	-13.811**
	Upper 27%	4.23	0.29		
A meaningful life	Lower 27%	2.40	0.45	43	-18.992**
	Upper 27%	4.44	0.28		
PSpWBS total	Lower 27%	2.75	0.30	43	-14.485**
	Upper 27%	4.04	0.30		

**p<0.001, df: Degree of freedom, SD: Standard deviation

Table 4. Cronbach's alpha internal consistency coefficients and Pearson correlation coefficients between factors

	n	Mean	SD	Cronbach's alpha	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1	9	3.48	0.78	0.889	1			
Factor 2	4	3.05	0.72	0.662	0.480**	1		
Factor 3	4	3.59	0.53	0.652	0.344**	0.258**	1	
Factor 4	3	3.54	0,83	0.645	0.323**	0.081	0.151	1

**p<0.01, Factors: (1) self-esteem; (2) Care for patients; (3) interpersonal relationship; (4) a meaningful life

an upper limit for validity, it can never guarantee validity. For this reason, in our adaptation study, content validity was also checked by having the scale examined by experts on this subject (36). In addition, there is a significant positive relationship between the factors in general (r=0.480-0.258, p<0.01). Only factors four, factors two, and factor three were not significantly correlated.

Discussion

There are many studies in Turkey on spiritual well-being, but no studies have investigated spiritual well-being in physicians. To our knowledge, this is the first methodological study in Turkey to measure the spiritual well-being of a physician using physician data. Because there are no other credible scales available at the moment to measure the SpWB of a physician in Turkey, it was impossible to make any comparisons. In the current literature, there are many measurement tools that assess the spiritual well-being of patients (37-39) and nurses (40). However, there are limited measurement tools to assess the spiritual well-being of physicians. The study aimed to examine the reliability and validity of the Turkish version of PSpWBS, which was developed by Fang et al. (17) to determine the spiritual well-being of a physician. For this purpose, data were collected from a sample consisting of physicians, and analysis studies were carried out on these data. In this regard, our findings suggest that PSpWBS adapted into Turkish is a valid and reliable measure for evaluating the level of spiritual well-being of physicians.

There are many techniques used in factorization. Principal component analysis is the most commonly used factorization technique (31). In the current study, PCA was applied within the scope of the scale construct validity. As a result of PCA (KMO value, 0.84; Barlett sphericity, $\chi 2=1305.231$, p<0.001) it was concluded that the data would reveal appropriate factors. The result of the PCA, the four-factor structure of the scale, was confirmed. In scale development studies, various criteria are used to determine the scale factor structure. Some of these criteria are that the variance explanation percentage for each factor obtained should be at least 5%, and the total variance explained should be 40% or more (21,41). The current study analyzed the validity and reliability of PSpWBS, which manifested a four-factors construct. The factors' explainable variance was between 7% and 30%. PSpWBS explains 54% of the total variance. This result ensures a considerably high variance for a scale and is thus acceptable in terms of the literature.

Item-total Pearson correlation coefficients are expected to be at least 0.20 (35). In the current study, the item-total Pearson correlation coefficients are between 0.205 and 0.669, except for one item. The item-total Pearson correlation coefficient for the 6th item was 0.155. Since the factor loading of this item was 0.715 and the correlation coefficient was not negative, it was deemed appropriate not to remove it from the scale. The factor loadings of the scale items are between 0.427 and 0.828. In the literature, factor loadings were considered high if above 0.60 and moderate if between 0.30 and 0.59 (34).

In addition, there is a significant positive relationship between the factors in general. Only factors four, factors two, and factors three were not significantly correlated. Moderate correlations between different constructs in a measurement tool can be accepted as an indicator of the fit between constructs (42). It can be said that the correlation results support the emergence of appropriate constructs. The correlations between "care for patients", "a meaningful life", and "interpersonal relationships" were not significant and should be examined in detail in another study.

The ability to discriminate significantly between groups with high and low scores on the scale establishes another piece of evidence of the internal validity of the scale (22). To test the discriminant validity of the overall scale and sub-dimensions, t-test analysis was performed for the scores in the lower and upper 27%. The results indicate that the discriminant validity of the scale between the lower and upper groups was achieved (p<0.001).

The American Psychological Association (APA, 1974) defined reliability as the freedom of measurement results from error (43). The most commonly used method to calculate the reliability coefficient in scale development and cross-cultural adaptation studies is Cronbach's alpha (44). In the current study, Cronbach's alpha internal consistency coefficient was calculated for the reliability of the scale. The reliability value of a measurement tool is desired to be above 0.70 (26). However, a value of 0.70 or below should not be interpreted as low reliability (41). Factor analysis showed that the internal consistency Cronbach value for each factor was between 0.645 and 0.889. The Cronbach alpha value for the internal consistency of the total scale was 0.857, which signified that the items in the scale had high reliability and were aimed at measuring the same concept (41). According to these results, it can be concluded that PSpWBS is at an acceptable level. Fang et al. (17) found that the internal consistency Cronbach's alpha value for each factor was between 0.625 and 0.794, and the total scale was 0.864. The scale has four reverse-scored items (2, 6, 9, 13, 16, and 19). A higher score elevated levels of spiritual well-being in the subject.

Physician's Spiritual Well-Being Scale is a suitable tool for understanding the spiritual well-being of physicians in a Turkish cultural context. Spiritual well-being is a condition that can have negative consequences for physicians and

the patients they serve. The physician's spiritual health impacts patient care and is a part of medical ethics that should be emphasized (17). Professional associations, medical education, universities, accreditation organizations, health policymakers, and physicians should consider this situation a strategic priority and a moral imperative. Physicians should focus on the status of their spiritual well-being, and it is suggested that future studies should focus on the phenomena of the spiritual well-being of physicians with the goal of developing continuing education for the promotion of spiritual well-being in physicians. In addition, physicians should develop various conceptual models to identify the factors contributing to spiritual well-being and guide interventions to increase spiritual well-being.

Study Limitations

The study has some limitations. First, since PSpWBS is a new scale, no studies have discussed the results of the scale adapted to Turkish. Future studies will help to understand and discuss the various dimensions of PSpWBS more clearly. Secondly, Cronbach's alpha reliability coefficient was preferred to evaluate the scale's reliability because it was measured at a single point in time. The reason for this is the difficulty of reaching the same physician a second time. Future researchers can re-evaluate the reliability by making measurements more than once using the test-retest method. Third, CFA was first applied to the scale adapted into Turkish; however, according to the CFA results, acceptable fit values could not be reached, and it was seen that the factor loadings of many items were low and not significant. Therefore, the construct validity of the scale was analyzed with PCA as in the original study. It is recommended that researchers who will conduct studies with the scale test the construct validity of the scale with CFA. Finally, the fact that our study is the first measurement tool that can be used to assess the spiritual well-being of physicians in Turkiye is the strength of our study.

Conclusion

The PSpWBS Turkish form is a suitable tool for understanding the spiritual well-being of physicians in a Turkish cultural context. In the current health system, there is a lot of pressure on physicians, and they carry a heavy workload. This situation affects physicians' spiritual well-being and becomes a factor that prevents them from performing the desired performance while practicing their profession. Physician spiritual health impacts patient care and is a part of medical ethics that should be emphasized. Future studies on the spiritual well-being of physicians may provide more insight into their spirituality. In addition, continued research is recommended to refine and verify its psychometric properties among physicians.

Ethics

Ethics Committee Approval: Ethical approval was obtained from the Ethical Committee of Istanbul Sabahattin Zaim University (date: 28.01.2022, decision no: 2022/01).

Informed Consent: Consent was obtained from the study participants before the interview.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Concept: A.B., Design: A.B., Data Collection or Processing: H.S., Analysis or Interpretation: A.B., Literature Search: H.S., Writing: H.S.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declare that this study has received no financial support.

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