Linguistic Validation of the Spiritual Health Assessment Scale (SHAS)

Samer Fatima, Anum Rabbani, Rafia Gul

Article Info	Abstract
	The present study aimed to investigate the linguistic validation of the Spiritual Health Assessment Scale (SHAS) (Gaur & Sharma, 2014). The study hypothesized a likely relationship between demographic variables and SHAS; and a difference between family systems (joint and nuclear) with SHAS. Through the non-probability purposive sampling technique, a sample of 632 participants (M=22 years, SD= 2.15) was recruited by distributing online form (e-form) in all SNS platforms, to students of private institutes, universities, colleges, and medical colleges. Results were derived through assessing sampling adequacy, Confirmatory Factor Analysis (CFA), Pearson Product Moment Correlation Coefficient to assess the relationship between demographic variables, subscales, and total score of SHAS, and Independent Sample t-test to assess the difference between family systems in terms of Spiritual health. Results showed that the Cronbach alpha reliability of the Spiritual Health Assessment Scale (SHAS) was 0.86 which showed a good reliability coefficient. The value of KMO was analyzed as 0.89 which is considered highly adequate and suitable for structure detection. Confirmatory factor analysis (CFA) showed that the default model for goodness was not fit while the final modified model displayed a good fit model. The Pearson Product Moment Correlation Coefficient demonstrated a significant relationship between subscales and total score of Spiritual Health Assessment Scale and demographic variables i.e., education, gender, family system, the father being alive, father relationship, mother relationship, and atmosphere of the residence. There was a difference between the joint and nuclear family systems with a total score of SHAS. It is important to identify the spiritual health of any person. The Urdu translation and validation of this tool will make it more authentic and useful to administer on general, worldly common individuals to know about their spiritual health and will make it clear for further process or steps to take for the betterment of a person.

Introduction

Spirit derived from Latin word i.e. 'spiritus or spirare' means breath, courage, or soul (Hjelm, 2010). People seek spiritual health from various means like belief in a higher power, religion or religious practices, non-religious experiences (MacKinlay, 2017); an individual's inner force by connecting with others. Spiritual health is linked with good health, lower rate of mortality, feelings of happiness (Lee & Lee, 2015), improved resiliency, decreased stress, depression, anxiety (Wiggins et al., 2008; Bonelli et al., 2012) and optimism in stressful circumstances, increased internal energy (Koenig, 2012), the satisfaction of life, improved quality of life (Trevino et al., 2010; Ali et al., 2015; Jahani et al., 2012), improved social functioning, and self-efficacy (Duggleby et al., 2009; Koenig, 2012), and increased hopefulness.

In a worldwide view of health, and with the progress of medicine apart from bio-psycho-social welfare, the spiritual aspect is also involved (Alborzi et al., 2019). It facilitates people to have strong hope and faith and achieve their life goals (Zhang et al., 2020). WHO is profound on observing biopsychosocial scopes of health, and now, are discovering the "4th dimension of the health". In 1995, WHO has added spirituality to the idea and concept of health (Deng & Liu, 2020).

The awareness of spiritual health is inadequate because of less research in this field. Despite the absence of a direct link, researchers have constantly found a correlation between spiritual health and improved physical and mental health, i.e. better sleep; lower blood pressure, less depression, less stress, low mortality rate, building and strengthening relationships, higher self-esteem, and compassion, open to spiritual experiences, inquisitive, respective to pain and grief, practice acceptance and non-judgment (Student Wellness Services, 2021).

People with improved spiritual health are more resistant to illness and stress (Hedayati et al., 2016). It helps people to discover healthy and appropriate coping strategies (Baldacchino, 2015).

Spiritual Health in Psychology

Spiritual health is observed as a beneficial coping method in psychology (Hatefi et al., 2020). For the last two decades, spiritual health has been studied with different concepts and dimensions of human life i.e. coping skills (Murali et al., 2016); mental health (Hilton & Child, 2014; Jang & Johnson, 2004; Hills et al., 2005; Sorajjakool et al., 2008); physical health, depression (Akbari &Hossaini, 2018), quality of life, and burnout (Dhar et al., 2011).

Various factors are involved in the strengthening of spiritual health. Hope, forgiveness, positive outlook, self-acceptance, meaning and purpose, sense of worth, peace, prayer, meditation, highest life quality level, positive beliefs, and comfort. Ingesting spiritual nutrition which includes hearing positive and loving messages from others, observing and appreciating the wonders and beauty of surroundings and world.Like strengthening, various factors are also involved in deteriorating spiritual health. Desolation, anxiety, loss of meaning, self-judgment, apathy, contradictory values, worried, annoyance, and life stressful events. Sometimes, spiritual health leads to various conditions i.e. physical or psychological which include loss of appetite, exhaustion (Heidari et al., 2015).

Spiritual Health in Different age Groups, Regions and Countries

In China, Japan, and Thailand, more than a third fourth of the population reported having meaning or purpose in life. In the USA, under 60 years of age reported thoughts about the meaning of life. For elderly people with cardiac diseases, it is essential to study their spiritual health and religious extents (Akhoondzadeh et al., 2014; Hatefi et al., 2019), as increased and improved spiritual health can reduce pain.In the Chinese context, spiritual health is identical to the general view of spiritual well-being. Spiritual health is considered one of the important features of well-being (Li et al, 2019; Xing et al., 2018). In collectivistic societies like Pakistan people live in close interaction with each other and support each other through spiritual gatherings and more focus on spiritual health (Anum &Dasti, 2016).

Raghavendra and Lokesh (2020) assessed spiritual health and its relation to perceived stress among medical students through a cross-sectional study. Self-administered questionnaires i.e. SHAS and Perceived stress scale were used. The result shows a significant association between perceived stress and spiritual health among medical students. The majority of the students were having moderate stress, and more than half were having fair spiritual health.

Another study was conducted to understand spiritual health and coping strategies among medical dental students through a cross-sectional method (Dhama et al., 2017). 389 dental students were selected with a mean age of 22.8±3.17 years. SHAS and Adolescent Coping Orientation for Problem Experiences (ACOPE) scales were used. Among coping strategies, seeking diversions was reported as the highest mean score while challenging activities scored least. The results highlighted that spiritual health affects coping strategies as essential.

Murali et al. (2016) studied spiritual health and coping strategies among medical students (first year) (n=138) through a cross-sectional study. The participants were recruited by convenience sampling. SHAS and the Brief COPE Scale were used as research questionnaires. Results showed that 31.2% of participants had good spiritual health; 97.8% of them had higher adaptive coping skills scores and 37.7% had maladaptive coping skills, respectively. Women medical students exhibited more adaptive and religious coping.

Dixit et al. (2016) investigated the relation between architecture type, interpersonal relationship, and spiritual health of the resident. Relationship Structures questionnaire and SHAS were used as research measures. Results showed that interpersonal relationship was better for housing society having architecture design desiring more comfort. Spiritual health was significantly higher in the head of households of societies with more desire for comfort.

Among various other researchers, Gaur et al. (2015) did a cross-sectional study to assess the relationship of spiritual health with mental health. For study purposes, the geriatric population of Jaipur city (Rajasthan), India was selected and a technique of 30 clusters was used to identify the elderly (≥60 years). SHAS and Modified Mini Screen (MMS) were used as research measures. Results showed poor spiritual health in most elderly people.

In Pakistan, Mansoori et al. (2019) conducted a cross-sectional survey to investigate spiritual health and coping strategies among medical students in a crisis. A simple random sampling technique was used. SHAS and Brief COPE scale were used as research measures. Out of the total 511 students, 298 were males and 213 were females. The mean age was 21 ± 1.8 years. 261 students were found to have good spiritual health. Significant differences were observed between male and female students doing gratitude, acting according to moral values, introspection, knowing the purpose of their own life, own strengths, solutions to deal with weaknesses, performing yoga to achieve, and maintenance of spirituality.

Rationale

Urdu translation and validation of the Spiritual Health Assessment Scale on the Pakistani adult population was done because this concept is limited as compared to other Islamic-related areas. In the research field, more studies are conducted based on religiosity or morality but not much on spirituality. The limited knowledge of spirituality is because of the limited literature. Another reason for choosing this tool to translate and validate on Pakistani population, this tool can apply to any worldly common person apart from religion or atheism. Indigenous literature doesn't have vast access to the concept, domain, and development of a measure of spiritual health. Lack of attention to spiritual needs ultimately leads to increased stress, decreased hope, sadness, spiritual isolation, depression, violence. Therefore, it is important to identify the spiritual health of any person. The Urdu translation and validation of this tool will make it more authentic and useful to administer on general common individuals to know about their spiritual health and will make it clear for further process or steps to take for the betterment of a person.

Objectives

(1) To translate and validate the Spiritual Health Assessment Scale (SHAS)
(2) To assess the relationship of demographic variables with the spiritual health of adults
(3) To investigate the difference between family systems in terms of spiritual health

Hypotheses

H1:   There is likely to be a relationship between demographic variables and spiritual health.
H2:   There is likely to be a difference between family systems in terms of spiritual health.

Method

The current research is based on construct validation. Non- probability purposive sampling technique was used in this research. 632 adults (men= 185; women=447) with the age range of 20-30 years were selected. The adult students were recruited for samples from private institutes, colleges, universities, and medical colleges. Diagnosed participants with psychological issues, government or semi-government institutes, and married participants were excluded from the research data. Assessment measures included demographic sheet included the participant's age, gender, education, family system, monthly family income, relationship with parents, residence, the atmosphere of residence, presence of any physical illness or psychological issues (diagnosed or else), and Spiritual Health Assessment Scale (Gaur & Sharma, 2014). This tool was developed to investigate and assess spiritual health, spiritual experiences, development, knowledge, and realization of self. This tool was developed on a population sample of 1050 individuals of 20-60 years. This scale contains 21 items, three domains, with 7 items in each domain. Subscales include self-development, self-actualization, and self-realization. The alpha reliability of the scale is .81.

Translation of Spiritual Health Assessment Scale

Translation of the Spiritual Health Assessment Scale (SHAS) was done after getting the permission of the original author. MAPI guidelines were followed for translating the scale.
Forward Translation. It was done with the help of three professionals who were native speakers of the target language and the principle of higher education in the field of social sciences, after taking permission from the original author. After consensus with the supervisor and experts, a final forward translation among three independent translations was selected.
Backward Translation. This was done to obtain a translation from the Urdu language to English to re-evaluate the literacy and grammatical error and validate the scale according to the native language. The final version of the Urdu language translated scale was given to three bilingual experts who were fluent in both languages in the field of social sciences. After minor changes, the final form of the English deciphered scale was created.

Empirical Validation

The empirical validation included:
a)   Sampling Adequacy by EFA
b)   Confirmatory Factor Analysis (CFA)

The Procedure of the Study

Permission of using the tool was taken from the author. This research was approved by DARC, BOS, and BASR. SHAS was translated by using MAPI guidelines of tool translation. In a pilot study, 10 participants were approached through an online method, and a Google form was shared. It was done to observe the total time for administration of the questionnaire and the concentration level of the participants' opinion was taken from participants to get an idea regarding comprehension and understanding of questionnaires.

In the main study, the data were collected from the general population with a sample of adult students with the help of Google Forms. After clearly explaining the rights of the participant, the demographic information and SHAS (in the Urdu language) were included in the data form. The link to Google form was shared and distributed to all social media platforms and prestige sources of private institutes, universities, and medical colleges as much as possible.

Statistical Analyses

Initially, SPSS was used to analyze the data. Descriptive statistics were done to analyze the demographic variables. To find the relationship between the demographic variables and subscales and the total score of SHAS, Pearson Product Moment Correlational Coefficient was run. Sampling adequacy was checked by EFA, and then validation was done by Confirmatory Factor Analysis (CFA).

Results

Section I: Demographic Analysis

The mean age of the sample was 22 years (SD= 2.15). Majority of sample comprised of women (f= 447; %= 70.7). The majority of participants of the sample consisted of undergraduate students (f =515; %=81.5). More than half of the participants belonged to the joint family system (f =361; %=57.1). The monthly family income of one-third of participants was more than 80,000 (f =210; %=33.2). Majority of participants had satisfactory relationship with father (f =389; %=61.6) and mother (f =445; %=70.4). One fourth of participants were 4 siblings (f =158; %=25.0); and one third of the sample were first born (f=227; %=35.9). The majority of participants were residing at home (f =514; %=81.3) and two-thirds of them reported a satisfactory environment of residence (f =412; %=65.2). Majority of participants didn't report any physical illness (f =582; %=92.1) and psychological issues (f =564; %=89.2).

Section II: Psychometric Properties

Table 1. Psychometric Properties of SHAS

Measure	K	M	SD	a	Minimum	Maximum
SHAS				.86		
Self-Development	7	29.67	4.27	.73	14	35
Self-Actualization	7	27.18	5.12	.79	7	35
Self-Realization	7	25.58	5.23	.75	10	35

Section III: Exploratory Factor Analysis (EFA) Sampling Adequacy

Bartlett's test of Sphericity is another measure of showing the strength of relationships between variables. The value of BTS was also significant which indicates the adequacy of the data (Table 2).

Table 2. KMO Sampling Adequacy and Bartlett's Test

KMO Measure	Bartlett''s test of Sphericity	Df	P
0.89	3842.99	210	.000

Section IV: Validation of Study: Confirmatory Factor Analysis (CFA)

Factor analyzed by CFA through SEM (using AMOS 21). Several fit indices included Goodness of fit index (GFI >.90) as suggested by Joreskog and Sorbom (1993), Comparative Fit Index (CFI> .90) proposed by Bentler (1990), Tucker-Lewis Index (TLI>.95) given by Hu and Bentler (1999), and Root Mean Square Error of Approximation (RMSEA≤ .05) as given by Browne and Cudeck (1993) (Table 3).

Table 3. Model Fit Indices of SHAS

Models	χ2 (df)	P	GFI	CFI	RMR	RMSEA
Default Model	3.198	.000	.916	.889	.062	.059
Modified Model	2.16	.000	.945	.944	.053	.043
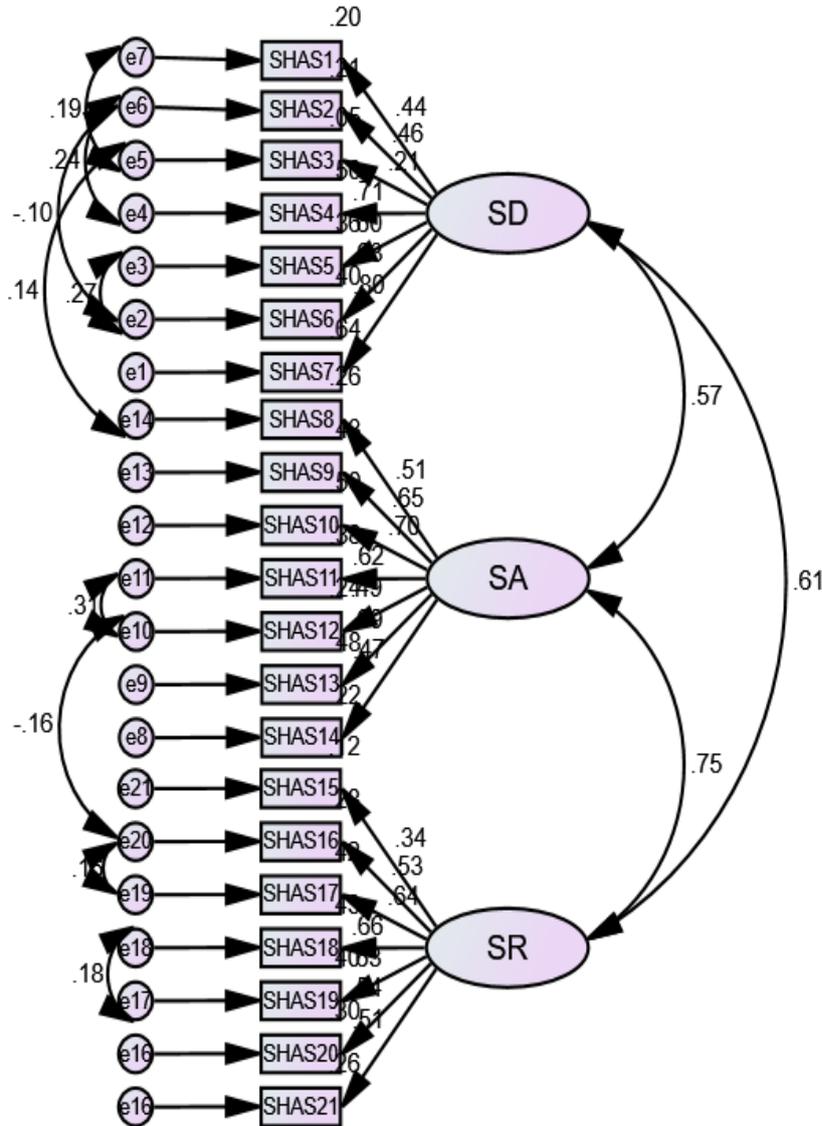
A modified model for Confirmatory Factor Structure of SHAS

Inferential Analysis

Table 4. Correlation Analysis of Demographic and SHAS

	1	2	3	4	5	6	7	8	9	10	11
1. Education	1	-.03	.07	.05	-.00	-.03	-.01	.12**	.05	.05	.09*
2.Gender		1	-.15**	-.02	-.09*	-.12**	-.03	-.04	-.02	-.07*	-.06
3.Family System			1	-.01	.00	-.02	.01	.04	.04	.13**	.09*
4.Father Alive				1	.31**	.04	.05	.08*	.02	.04	.05
5. Father Relationship					1	.59**	.42**	.15**	.07	.15**	.15**
6.Mother Relationship						1	.40**	.14**	.06	.10**	.12**
7. ResidenceAtmosphere							1	.09*	.06	.13**	.11**
8. Self-Development								1	.47**	.46**	.76**
9.Self-Actualization									1	.56**	.84**
10.Self-Realization										1	.84**
11.Total SHAS											1
M	.81	.71	.57	.90	.62	.70	.65	29.67	27.18	25.58	82.43
SD	.38	.45	.49	.30	.48	.45	.47	4.27	5.12	5.23	11.96

Independent Sample t-Test

The table indicates that there is a difference between the joint and nuclear family systems is related to the total score of the Spiritual Health Assessment Scale. Equal variance is not assumed, and the difference between the two groups was observed through independent sample t-test analysis (Table 5).

Table 5. Family System Related to Total Score of SHAS

Variable	Joint	Nuclear				95% CI	
	M (SD)	M (SD)	df	T	p	LL	UL
SHAS-Total	83.38 (12.33)	81.15 (11.36)	604.3	2.34	0.01	0.364	4.085

Discussion

The sample in the study consisted of 632 adults (M=22 years, SD=2.15) who were recruited by distributing online form (e-form) in all SNS platforms, to students from private institutes, universities, and colleges. The participants were finalized and recruited based on the inclusion and exclusion criteria.

Spiritual Health Assessment Scale (SHAS) consisted of 21 items. The Cronbach alpha reliability of SHAS was 0.86 which showed a good reliability coefficient. Results proved that the Urdu translated version of SHAS is a reliable psychological tool. Dhama et al. (2017) estimated the value Cronbach alpha of SHAS as 0.86, which is also the same as the Cronbach alpha value of this study.

After assessing demographic analysis and internal consistency, sampling adequacy was done with the help of Exploratory Factor Analysis (EFA). Sample adequacy was examined through values of KMO and Bartlet's Test of Sphericity. Kaiser (1974) mentions that values greater than 0.5 are barely acceptable, .5 to .7 are mediocre, .7 to .8 are good, .8 to .9 are great and above .9 are superb. KMO of this study is 0.89 which is close to the superb value of sampling adequacy. The value of BTS was also significant (χ^2 (210) = 3842.99, p = .000) which indicates the adequacy of the data.

For validation of SHAS, CFA was done through AMOS 21. The GFI, CFI, TLI, RMR, and RMSEA were analyzed and used for the identification of model fit. The CFA included default and modified models. In the default model, the estimated values of all indices were not promising and that leads to the conclusion that the model was not fit enough to give accurate results about confirmatory factors of SHAS. Therefore, the modified model was developed by adding modification indices in the initial model, in the end, the modified model displayed a good fit model with values of chi-square= 2.16; p=.000; GFI= .945; CFI= .944; RMSEA= .043. The Confirmatory Factor Analysis in this study indicates that the Spiritual Health Assessment Scale (SHAS) is three subscales instrument i.e. self-development, self-actualization, and self-realization, which is a reliable and valid tool for the adult population.

The additional analyses of the present study included Correlation and Independent Sample t-test. The correlation was between demographic variables and subscales and the total score of the Spiritual Health Assessment Scale (SHAS). The education of the participant has a significant positive relationship with self-development and total score of spiritual health. Hasanshahi and Mazaheri (2016) investigated the effects of spiritual education on the spiritual well-being of students which showed that education has significant effects on the students' spiritual

well-being. To assess the relationship between spiritual well-being and academic achievement Makki Abadi et al. (2015) concluded that there is a significant positive relationship between spiritual well-being and students' academic achievement. The family system of the participant has a significant positive relationship with self-realization and total score of spiritual health. Pakistan is a collectivistic culture, where families are more likely to live together; they are more bound with each other.

The relationship of the participant with both mother and father has a highly significant positive relationship with self-development, self-realization, and total score of spiritual health. Research with African American women has found that spiritual commitment promotes both interpersonal and intrapersonal functioning. Frequent, honest, and open communication between adolescents and adult students with parents was more strongly and significantly linked with adolescent spirituality or spiritual well-being (Tabak et al., 2012).

An independent sample t-test was run to investigate the difference between the joint and nuclear family systems are related to the total score of the Spiritual Health Assessment Scale. Results showed that equal variance was not assumed, and the difference between the two groups was observed through independent sample t-test analysis. In Pakistani culture, the joint family system ought to develop more significant behaviors in children and adults. For others, the joint family system means the binding of the heart and spirit. The joint family has good adjustment from one to another and they support each other. The joint family system fosters abundant qualities like a sacrifice, affection, the spirit of selfishness, social virtues, self-control; each one of them leads to improve and adequate spiritual health.

Conclusion

Spiritual health is a necessity and important for every being. In any field of social sciences, humanistic or psychological; it is important to investigate the 'condition' of spiritual health. Apart from any religion, the Spiritual Health Assessment Scale (SHAS) is a reliable and valid tool to administer to the adult population.

Implications

(1) The study has implications in the field of hospitals, clinical psychology, education, and student-related careers and fields.
(2) A brief, non-biased, and easy to administer tool to assess spiritual health and levels of spiritual health.
(3) It can be used as a liable tool for research and clinical use.
(4) Useful for experts i.e. professionals, psychologists, psychiatrists, and social workers.

Limitations and Suggestions

(1) The sample size in the present research project was adequate; however, the sample was drawn from the province of Punjab, extensive research with a representative sample of other provinces of Pakistan could assist in improving the psychometric properties of the scale.
(2) A validation study on other Pakistani populations could be done to advance and increase the gross importance of SHAS.

Declaration of interest statement

I declare that there is no conflict of interest.

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Author Information

Samer Fatima	**Anum Rabbani**
MS Research Scholar	Senior Lecturer
Riphah Institute of Clinical & Professional	Riphah Institute of Clinical & Professional
Psychology, Riphah International University	Psychology, Riphah International University
28-M, Quaid-e-Azam Industrial Estate Kot Lakhpat,	28-M, Quaid-e-Azam Industrial Estate Kot Lakhpat,
Lahore, Punjab	Lahore, Punjab

Rafia Gul
Assistant Professor Neonatology
Fatima Memorial Hospital, Shadman, Lahore