The Spiritual Care Competence Scale: A Confirmatory Study of the Malay Language Version

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Abstract

Background: Nursing competency is an integral part of providing patients with spiritual care. The aim of this study was to validate the translation of the spiritual care competence (SCC) scale to the Malay language version.

Methods: The cross-section study design applicable to the SCCS-M self-report questionnaire. Data were collected from staff nurses at the hospital Universiti Sains Malaysia. A total of 270 nurses participated in this study. Spiritual care competence was assessed with the 27-item SCC-M. Standard forward–backward translation was performed to translate the English version of the SCC into the Malay version (SCC-M). All the participants completed the SCC-M.

Results: The initial measurement models tested (6-factor models) did not result in a good fit to the data. Subsequent investigation of the confirmatory factor analysis (CFA) results recommended some modifications, including adding correlations between the item residuals within the same latent variable. These modifications resulted in acceptable fit indices for the 6-factor model: root mean square error of approximation (RMSEA) = .050, comparative fit index (CFI) = .900, Tucker–Lewis index (TLI) = .885, and standardized root mean square residual (SRMR) = .065. The final measurement models comprised all 27 SCC-M items, which had significant factor loadings of more than .40. The composite reliability was .696-.853 for 6-factors model.

Conclusions: These results suggest that the subscales in 6-factor SCC-M model are unique, the factors do not overlap much, and each factor explains different variance than the other factors. Therefore, the translated version of the SCC-M was valid and reliable for assessing the level of spiritual care competence among hospital nurses in Malaysia.

Keyword*: Spiritual; Validity and Reliability; Nurses; Translation; Competence.*

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Introduction

Spiritual Care Competence (SCC) is the knowledge, skills, and attitudes of nurses who provide patient's spiritual needs with implications and meaning as well as intent questions [1]. It refers to a range of skills used in the nursing process [2]. Such skills used in the professional field or nursing process include therapeutic relationships between nurse and patient, patient communication,

constructive listening, sensitivity, supplying patients with certain religious beliefs with religious services, supporting patients... etc. [3]. When nurses are conscious of their spiritual state, they may be conscious of their patients' spiritual situation [1]. Indeed, this awareness and spirituality in nurses is for creating obligation in the process of spiritual care. In nurses with higher spiritual well-being scores, age, occupation, and clinical career experience the psychological nursing performance was better. By comparison, when depression, anxiety, and stress levels were high, spirituality score was low [4].

The most often conducted spiritual nursing interventions by nurses were recorded as a result of analyzing the effects of local and international studies in the spiritual interventions. The influence of nursing interventions was substantial [5]. However, a nurse's spiritual nursing capability should be developed to recognize possible spiritual needs based on the awareness of the spirituality of the subject, and to conduct nursing interventions based on it [6].

Spiritual care competence scale (SCCS) focused on spiritual dimensions of assessing the competencies of nursing spiritual care. The tool was built on the basis of nursing competence profile [7], which relies on comprehensive literature conducted among nurses. It focused on the role of the nurse in providing spiritual care, spirituality as a side of the methods of nursing care and the involvement of the nurses in improving and developing the performance of nurses within the nursing institution.

The spiritual care competence scale (SCCS) consists of 6 domains with 27 items. The first domain is the 'assessment and implementation of spiritual care' contain six items. This domain refers to the ability to determine a patient's spiritual needs and problem, and to the planning of multidisciplinary spiritual care. This includes written intra- and inter-professional communication of spiritual needs and spiritual care. The second domain is the 'professionalization and improving the quality of spiritual care' contains six items. This domain contains the activities of the nurse aimed at quality assurance and policy development in the area of spiritual care. It refers to contributions to the institutional level that transcend the primary process of care, and with which the nurse also contributes to the promotion of professional practice. The third domain is 'personal support and patient counselling' contain six items. The dimension of this domain was the heart of spiritual care, with items operationalized in terms of interventions. They indicate the actual provision and evaluation of spiritual care with patients and their relatives. The fourth domain is the 'Referral to professionals' is contains three items. The dimension of this domain relating to cooperation with other disciplines in healthcare that take responsibility for spiritual care, for example, Imam. The fifth domain is the 'attitude towards patient spirituality' contain four items. This domain refers to personal factors relevant to providing spiritual care. The last domain is the 'communication' contain two items. This domain refers to the essential aspects of spiritual care between nurses and patients by contact and communication.

The author stated that the instrument could be useful for instructional and academic purposes to assist the capacities of the nurses in delivering spiritual care. Evaluating the nurses will help the researcher enhance the method and establish an effective educational program to enhance the competence of the nurses to provide the patients with spiritual care [6].

However, SCCS was used to assess the competence of nursing college students and staff nurses in hospitals with reliability and validity tested in several countries including the Netherlands, Korea, Brazil and Pakistan with various languages such as English, Korean, Brazilian Portuguese, Prison and the outcome of the reliability test was high from 0.61 to 0.80 [1].

Today, a limited study measure spiritual care in the nursing sector in Malaysia. Contributing to enhancing the evidence-based nursing practice by recognizing, applying nursing competency and checking the validity of the Malay version is required. This study therefore aims to measure the validity and reliability of the Malay version of SCCS among nurses in Malaysia.

Materials and Methods

Participants

The online survey included a total of 320 participants; the response rate was 84% with 270 questionnaires filled out and submitted to the researchers. All participants were staff nurses from various departments (Medical,

Surgical, Pediatric, Orthopedic, Emergency, Psychiatric, Operation rooms and Clinical Unit) of Hospital Universiti Sains Malaysia (HUSM) with at least one year of experience and diploma degree.

Measurement

SCCS self-assessment has 27 items, consisting of six areas: assessment and implementation of spiritual care (Item 1-6), professionalization and improving the quality of spiritual care (Item 7-12), personal support and patient counseling (Item 13-18), referral to professionals (Item 19-21), attitude towards patient spirituality (Item 22-25), and communication (Item 26 and 27) (1 pp. 138-140). The items used a 5-point Likert Scale (1= strongly disagree, 5= strongly agree). The questionnaire has a minimum of 27 scores, and a maximum of 135 scores so that below 64 is low spiritual competence, 64-98 suggests average spiritual care and above 98 demonstrates high spiritual competence. The questionnaire has simple instructions and can be done in 10-15 minutes. Previous studies indicated that the SCCS is a valid and reliable indicator of competence in spiritual care, and the Cronbach's alpha scores ranged from 0.56 to 0.82 [1, 8]. Determining the sample size depending on the number of items in the questionnaire. The sample to variable ratio, also referred to as the N: P ratios where (N) refers to the number of samples and (p) refers to the number of variables or items. This Study's N: P is 10:1. In Confirmatory Factor Analysis (CFA), the sample size needed is 270 participants [9].

Questionnaire Translation

Using forward and backward translation process, the bilingual (knowing both English and Malay) from the Center for Translation and Language in USM prepared the adapted translation of the English version of SCC scale into the Malay version. To finalize the Malay language version of the SCC scale, a consensus was reached on each translated item by sending the questionnaire to a lecturer who holds a PhD in English language translation and a lecturer with a PhD in the Nursing program.

Procedure

The cross-section study design applicable to the SCCS-M self-report questionnaire. Data collection by staff nurses at Hospital Universiti Sains Malaysia, Kelantan, Malaysia using a simple random sampling method. The researcher explained the study to the Head of Nursing in each department. The Head of Nurses shall explain the survey to the staff nurses and provide a link to all participants. The online survey consisted of the information sheet and the SCCS-M questionnaire.

Ethics approval

Ethical approval has been obtained from the Research Ethics Committee of the USM. A research information sheet was given to the participants prior to their inclusion in the study. Consent received when the staff nurses sent the completed questionnaire to the researchers. Participants were informed that their participation was anonymous and voluntary.

Statistical Analysis

Analysis of data using Mplus 8.0. Data screened for missing values prior to study. Out of the total of 270 questionnaires received, there were no responses with missing values. The CFA tested the correlation hypotheses between items depending on the fit indices, including the ratio of chi-square to the degree of freedom ($\chi 2/df$)< 5.0, root mean square approximation error (RMSEA) ≤0.08, comparative fit index (CFI) > 0.9, Tucker Lewis index (TLI) > 0.9, standardized root mean residual square (SRMR) ≤0.08 and p-value > 0.05 for the chi-square test [10-12]. Reasonable values of Cronbach alpha can be greater than 0.7 or 0.6 [13].

Results

Our sample consisted of 270 participants (male 7.4%, n = 20, female 92.6%, n = 251) from Hospital Universiti Sains Malaysia (HUSM). The average age was 35 years (SD = 8.4) and their ethnicity was Malay (96.7%), Chinese (2.6%) and Indian (0.7%). Their religion was Islam (96.7%), Buddha (2.2%), Christian (0.7%) and Hindu (0.4%).

Confirmatory factor analysis (CFA)

The result of the CFA in the initial model demonstrated poor data fit (see Table 1). However, all 27 items have factor loads greater than 0.40 with p values < .001. Further analysis was used to improve the model using the modification indices (MI) (Fig. 1). The findings

of the final model demonstrated an acceptable fit for the data (CFI.90; TLI.885, SRMR.065, and RMSE.050). Factor loads ranged from 0.497 to 0.870. The relative chi-square ($\chi 2$/df) was 1.66, which was less than 3 [14]. The final model was established without missing any of the items after the adjustment indices were applied. The average extracted variance (AVE) was 0.392–0.646 for the final 6-factor model (Table II). Some factors were lower than the recommended value of 0.50. However, the composite reliability (CR) was 0.696–0.853 for the final 6-factor model, which all the CR values were more than the recommended value of 0.60. According to Fornell and Larcker (15), even if AVE is less than 0.5, but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate (see Table 2). Therefore, the model was considered to have adequate convergent validity. The SCCS-M had an appropriate model fit suggested above the recommended values ($\chi 2$/df, CFI, SRMR, and RMSEA) except for the TLI which was marginally below the recommended value. Overall, the SCCS-M was considered to have adequate convergent validity.

Table 1. Summary of the models' fit indices.

Model	CFI	TLI	SRMR	RMSEA (90%CI)	RMSEA p-value
First model SCCS	0.868	0.851	0.066	0.057 (0.050, 0.064)	0.059
*Final model SCCS	0.900	0.885	0.065	0.050 (0.042, 0.057)	0.508

*Measurement final model with correlated item residual (Q3 and Q2; Q6 and Q4; Q18 and Q13).
CFI= Comparative fit index
TLI= Tucker Lewis Index
SRMR= Standardized root mean square residual
RMSE= Root mean square error of approximation

Table 2. Factor loadings, average variance extracted and composite reliability for each factor in the Spiritual care competence (Bahasa Melayu version)

Factors and items	Factor loading	Average variance extracted (AVE)	Composite-reliability (CR)
Assessment and implementation of spiritual care		0.392	0.790
Q1	0.626		
Q2	0.568		
Q3	0.497		
Q4	0.742		
Q5	0.744		
Q6	0.537		
Professionalization and improving quality of spiritual care		0.459	0.833
Q7	0.741		
Q8	0.718		
Q9	0.541		
Q10	0.652		
Q11	0.712		

Cont... **Table 2. Factor loadings, average variance extracted and composite reliability for each factor in the Spiritual care competence (Bahasa Melayu version)**

Q12	0.683		
Personal support and counselling of patients		0.426	0.828
Q13	0.691		
Q14	0.647		
Q15	0.643		
Q16	0.639		
Q17	0.651		
Q18	0.645		
Referral to professionals		0.441	0.696
Q19	0.598		
Q20	0.656		
Q21	0.731		
Attitude towards the patient's spirituality		0.605	0.853
Q22	0.776		
Q23	0.870		
Q24	0.668		
Q25	0.783		
Communication		0.646	0.785
Q26	0.797		
Q27	0.811		

The standardized factor loadings for SCCS-M range from 0.497 to 0.870, P-Value < 0.001.

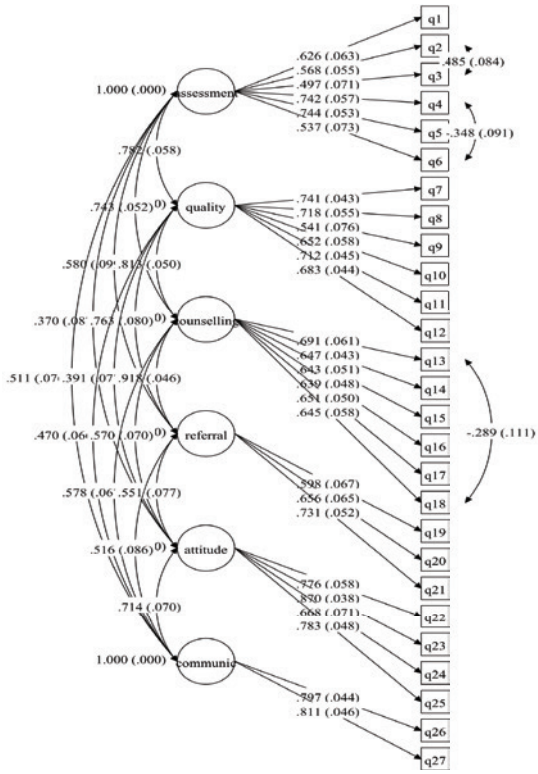

Figure. 1 Confirmatory factor analysis of SCCS-M

Internal Consistency

The Cronbach's alpha of the six factors SCCS-M was 0.787 for the assessment and implementation of spiritual care factor, 0.828 for the professionalization and enhancement of the quality of the spiritual care factor, 0.808 for the personal support and counseling factor, 0.685 for the patients referring to the professional factor, 0.851 for the patients' spirituality factor and 0.784 for the communication factor. Overall, the Cronbach alpha of the total six SCCS-M factors was 0.926, which demonstrated strong reliability (see Table 3).

Table 3. The consistency-reliability

Variables	Cronbach's alpha	Corrected items range
Assessment	0.787	0.726-0.787
Quality	0.828	0.473-0.665
Counselling	0.808	0.537-0.606
Referral	0.685	0.418-0.582
Attitude	0.851	0.619-0.783
Communication	0.784	0.646-0.646
SCCS-M	0.926	0.405-0.653

Discussion

In this study, the forward-backward method used to translate the SCCS English-language version into the Malay-language version is appropriate and understandable to Malaysians. Subsequently, the researcher verified the psychometric properties of the survey to provide an instrument for assessing the competence of the Malay nurses' community in the field of spiritual care. Perceived spiritual care is an essential aspect of the healthcare given to patients by nurses. As a result, the scale of the SCC should consider the concept of self-efficacy and be assessed with the population of Malay-nurses.

In this study, six factors and 27 items were produced without deleting any items similar to the standard scale of spiritual care competence [1]. Another study revealed a scale of competency in spiritual care with only three factors [16]. The CFA in this study showed that the first model did not fit the data well, with CFI (0.868) and TLI (0.851) values less than 0.90. However, all items had factor loads greater than 0.40; therefore, the MI checked for unnecessary items.

Based on the MI, three pairs of items had high MI values (Q3 and Q2; Q6 and Q4; Q18 and Q13). The model re - examined using CFA until the final model revealed that the accepted data fitted well (X2 / df = 1.66. CFI, 0.90; TLI, 0.885, SRMR, .065 and RMSE, .050). In the other hand, a study in Korea found that the CFI was 0.87, and the Normal Fit Index (NFI) was 0.85, which was somewhat incompatible with the fit criterion 0.90 [17]. A Turkish study showed that the Normal Fit Index (NFI) and the CFI were higher than 0.95, but the RMSEA was higher than 0.08. In fact, the model has an accepted fit model [16].

All the model correlations were smaller than 0.85, which demonstrated strong discriminatory validity [18]. Some of the AVE values were below 0.50. However, the composite reliability of the factors was (0.696–0.853) higher than the suggested value of 0.60 [19], which could also have adequate convergent validity.

The SCCS-M has been proven to have internal constancy with the sample studied. The total Cronbach alpha (0.926) was close to previous studies, such as the Brazilian Portuguese version recorded a total Cronbach alpha of 0.92 [20], and the Korean version with 0.95 [17].

The revised item-total correlation for all 27 items was also greater than 0.46. That proves that the scale of the SCCS-M has strong internal stability. The literature claimed that when the item-total correlations were lower than 0.3, it was not sufficient and the items did not help with the main factor check [21].

However, this tool can be utilized for practical and research purposes to evaluate student and staff nurse competencies in Malaysia towards spiritual care. These evaluations can provide insight for the nursing managers about the areas where nurses should receive training to become able to provide spiritual care to the patients. Also, it can be used in further research among nurses, before and after they have received educational programs or training in spiritual care, to evaluate whether they have improved their competencies in providing spiritual care.

Conclusion

The SCCS Malay version developed six factors and 27 items. The CFA reported that all items have loading factors greater than 0.40. The questionnaire also demonstrated high reliability. Overall, the SCCS Malay version has demonstrated an appropriate validity and reliable tool for assessing the competence of nurses in the field of spiritual care and can be used for research purposes. However, further study is necessary to consider the improvement of the tool.

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Conflict of Interest: The authors declare that there is no conflict of interest

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Ethical Statement: The study protocol has been reviewed and is hereby granted approval for implementation by the Human Research Ethics Committee of Universiti Sains Malaysia.

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