

DEVELOPMENT OF THE ARABIC SPIRITUAL CARE INTERVENTION-PROVISION SCALE

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ABSTRACT

Aims. This study develops a new instrument, the Spiritual Care Intervention-Provision Scale (SCIPS), and assesses its psychometric properties in an Arab Muslim nurse sample. The SCIPS was developed to measure the frequency with which nurses provided aspects of spiritual care.

Background. Most of the available spiritual care instruments were developed in the West and reflect a predominantly Christian tradition. A review of the literature on spiritual care in nursing revealed that no instrument exists for measuring spiritual care interventions provided by nurses to Arab Muslim patients.

Design. A cross-sectional descriptive and correlational design.

Methods. Following an extensive literature search, review by an expert panel and a pilot study which included patients' views regarding aspects of spiritual care provided by nurses, the final version of the SCIPS was tested in a convenience sample of 360 Jordanian Arab Muslim nurses. Correlational and factor analysis were used.

Results. The internal consistency of the SCIPS was high, with alpha coefficient of 0.85. The exploratory factor analysis supported a two-factor structure for the SCIPS as hypothesized. A significant positive correlation between the SCIPS and religiosity was in the expected direction though small in magnitude.

Conclusions. This study initiates the development of an instrument for the provision of spiritual care intervention by nurses that balances the religious and existential dimensions of spirituality. The SCIPS exhibited acceptable evidence of internal consistency and validity among Jordanian Arab Muslim nurses. Further work was suggested to firmly establish all aspects of this new scale.

Relevance to clinical practice. This culturally-specific instrument contributes to the evaluation of the provision of spiritual care by Jordanian Muslim nurses to their patients, to guide them in providing a comprehensive and appropriate spiritual care interventions, and to examine the effect of spiritual care on various aspects of patient's quality of life.

What does this study contribute to the wider global clinical community?

- A new culturally-specific instrument, the Spiritual Care Intervention-Provision Scale (SCIPS), has been developed to measure Arab Muslim nurses' frequency of providing various aspects of spiritual care intervention to their patients.
- The SCIPS balances the aspects of religious and existential dimensions of spiritual care intervention.
- Psychometric properties of the SCIPS were examined and found to have acceptable evidence of internal consistency and validity among Jordanian Arab Muslim nurses.

INTRODUCTION

The last two decades has seen a growing body of research into nursing spiritual care (Ross 2006). The Jordanian Nursing Care Standards (2005) note that the assessment of patients' spiritual needs is a part of the total assessment of patients' health needs. Similarly, the Gulf Cooperation Council (GCC) (2001) Code of Professional Conduct for Nursing and the Crescent of Care nursing model have spiritual care as a main component of professional nursing care and the psychosocial and spiritual needs of Arab Muslim patients and their family falls at the center of nurses' responsibilities (Lovering 2012). Hodge and Nadir (2008) stressed the importance of applying culturally competent practice with Muslim patients using appropriate spiritual interventions reflecting Islamic beliefs, values, teachings, and practices. Given the contemporary focus of spiritual care for Muslim patients, designing a culturally relevant assessment tool that measures aspects of spiritual care interventions is particularly timely. Most of the available spiritual care instruments were developed in the West and reflect a predominantly Christian tradition. A review of the literature on spiritual care in nursing revealed that no instrument exists for measuring spiritual care interventions provided by nurses to Arab Muslim patients.

For many Muslims spiritual beliefs and practices are a source of comfort in coping with their distress (Narayanasamy & Andrews 2000). Through prayer and meditation many Muslims seek support and help from Allah during suffering and illness (Errihani *et al.* 2008). Moreover, many Muslim patients view their disease as a part of life, a test from Allah, and a way of atonement for their sins. Furthermore, death is perceived as inevitable and a part of the total divine plan "It is God who creates you and takes your souls at death" (Qur'an 16: 70).

In the West, nurse-led spiritual care has been found to have the positive outcomes such as: a feeling of inner peace, satisfaction, relaxation and calmness, gratefulness, comfort, self-awareness, more ability to cope (Grant 2004, Narayanasamy *et al.* 2004), improved self-management in type 2 diabetic patients (Polzer 2007), increased spiritual awareness and satisfaction for chronically ill and aging populations in long-term care (Nichols 2013), and less pain (Wong & Yau 2010).

The paucity of research on spiritual care interventions among Arab Muslim nurses and the lack of a culturally appropriate spiritual care interventions assessment tool spurred the need to develop an instrument to measure these aspects of spiritual care suitable for Arab Muslim nurses. Such a tool would provide a framework for nurses to develop this aspect of nursing care and help evaluate nurses' performance in providing appropriate spiritual care.

Background

Aspects of spiritual care intervention reflect two dimensions: religious and existential (McSherry *et al.* 2002, Ormsby & Harrington 2003, Grant 2004, Narayanasamy *et al.* 2004, Sawatzky & Pesut 2005, Taylor & Mamier 2005, Ross 2006, Hummel *et al.* 2008, Lovering 2012, Mamier & Taylor 2014). The religious dimension is centered on religious beliefs, relationship with God, and religious practices (i.e. facilitating religious practices, praying with patients, and arranging visits by clergy). The existential dimension is oriented toward the relationship with the self and others (i.e. active listening, being present with a patient, meaning and purpose, respect, and holding a patient's hand).

Few of the existing spirituality scales focus on aspects of spiritual care interventions. Meyer (2003) developed the Student Survey of Spiritual Care to measure nursing students' perception of their ability, knowledge and barriers to providing spiritual care. Only two items concerned spiritual care and included only one existential aspect of spiritual care (listening). More recently, Tiew and Creedy (2012) developed the Spiritual Care-Giving Scale (SCGS) to measure nursing students' perspectives, beliefs and values concerning the provision of spiritual care. The SCGS included three aspects of existential spiritual care interventions, which were respect, listening, and being present with the patient.

Spiritual care was measured broadly using the Spiritual Care Perspectives Scale (Taylor *et al.* 1994) but this scale included only a single item to measure the frequency of providing spiritual care. The Spirituality and Spiritual Care Rating Scale (SSCRS) was developed to measure nurses' attitudes, beliefs and values regarding spirituality and spiritual care (McSherry *et al.* 2002). The spiritual care subscale focused on existential aspects of spiritual care such as listening, showing kindness, respect, and finding meaning and purpose. Recently, Burkhart *et al.* (2011) developed the Spiritual Care Inventory (SCI) to measure nurses' perception regarding their ability to provide spiritual care and the impact of that care on nurse spirituality. Four items in this scale were designed to measure spiritual care interventions such as being present and listening to patients.

To measure the frequency of providing spiritual care by nurses, Vance (2001) developed the Spiritual Care Practices Questionnaire but the structure of the questionnaire was not assessed using factor analysis and a low significant correlation between the spiritual care practice and both spiritual well-being ($r = 0.19, p < 0.05$) and spiritual beliefs and practice ($r = 0.19, p < 0.05$) was reported. Mamier and Taylor (2014) developed the Nurse Spiritual Care Therapeutics Scale (NSCTS) to measure a nurse's perception of the frequency of providing spiritual care practices. The NSCTS lacked some existential and religious aspects of spiritual care practices identified in the literature, such as maintaining hope and respect, holding a patient's hand, humour, meditating with a patient, discussing prayer difficulties, and participating in religious/spiritual events with others. This scale was tested in a western sample with the vast majority from the Christian tradition.

In summary, most of spiritual care instruments do not specifically focus on interventional aspects of spiritual care by nurses. Moreover, none of these instruments balanced the aspects of religious and existential dimensions of spiritual care intervention and none of them were conducted among an Arab Muslim population. Indeed, no instrument that is appropriate for measuring spiritual care interventions exists in the Arabic language. Therefore, the Spiritual Care Intervention-Provision Scale (SCIPS) was developed to measure Arab Muslim nurses' perceptions of the frequency of providing aspects of spiritual care intervention to their patients, including religious and existential dimensions.

The purpose of this study was to develop and psychometrically assess the properties of the SCIPS among Jordanian Arab Muslim nurses. To assess the psychometric properties of this scale, this study examined: (a) the factor structure of the SCIPS, (b) the internal consistency of the SCIPS, and (c) the correlation between the SCIPS and religiosity.

METHODS

Conceptual basis of the scale

Spirituality as a dual concept embracing religious and existential aspects guided the content of the SCIPS (Ellison 1983, McSherry *et al.* 2002, Baldacchino & Buhagiar 2003, Sawatzky & Pesut 2005, Ross 2006). The initial list of items was structured around 15 themes pertaining to nursing spiritual care interventions generated from previous research and the contemporary nursing literature: active listening; facilitating religious practices; praying to or with the patient; scripture reading; meditation; being present with a patient; holding a patient's hand; arranging a visit by clergy; facilitating a visit by family and close friends; respect; giving comfort and reassurance; maintaining hope; meaning and purpose; laughter and humour; and showing kindness.

Procedures for instrument development

Developing and assessing the SCIPS was carried out in four phases: (a) an extensive literature search, (b) the judgments of the expert panel, (c) the findings of pre-testing the provisional scale in a sample of hospitalized patients, and (d) testing the final version of the scale in a sample of Jordanian Arab Muslim nurses.

In the first phase, the common domains and themes of spiritual care intervention were determined through an extensive literature review and a review of items from existing scales measuring spirituality and spiritual care. Then items that were representative of the constructs being measured and appropriate for an Arab Muslim population were selected and modified. During this phase, Western concepts were modified into Arab-Islamic concepts such as "church", "scripture", and "chaplain" were modified into "mosque", "Qur'an", and "imam" respectively. Items were initially developed in English because of the lack of studies in Arabic and in Arab-Islamic culture. Then, the items were translated into Arabic.

In the second phase, the preliminary items of the SCIPS were considered by a panel of four PhD bilingual experts in spirituality, religion, research methodology, and translation. The panel was tasked to improve the face and content validity of the scale, to evaluate the consistency of meaning among the items and its comprehensibility, and to assess the language. The items were revised for language, cultural, and spiritual consistency to suit the Arab-Islamic culture.

In the third, pre-testing, phase, the preliminary SCIPS items were distributed to a convenience sample of 63 adult Arab Muslim hospitalized cardiac patients (47 men and 16 women) to determine the importance of the scale's aspects of spiritual care intervention to them. All but two of the items were perceived by more than 85% of patients to be highly important and desired spiritual interventions. The exceptions were two existential aspects of spiritual care intervention that were considered to be the least desired and least important by the patients so were removed from the list of potential items to be included in the scale at the suggestion of the expert panel. These two items concerned helping the patient to complete unfinished business and to listen to music. Based on participants' comments, the number of response categories of the SCIPS was reduced from six to four categories to more easily distinguish between response categories of the scale's items. A further pretest of the remaining 17 items on a convenience

sample of 10 Jordanian Muslim registered nurses indicated that the scale items were suitable, not confusing, and easy to complete.

In the fourth phase, the structure and internal consistency of the final version of the SCIPS were assessed.

Description and scoring of the Spiritual Care Intervention-Provision Scale

The SCIPS(see Appendix I) consists of 17-items in a Likert scale response format and contains eight religious items and nine existential items. The religious items measure the frequency of provision of religious aspects of spiritual care intervention centered on religious beliefs, beliefs about God, relationship with God, and Islamic religious practices. The existential items measure the frequency of existential aspects of spiritual care intervention (horizontal dimension) oriented toward the relationship with the self and others, such as creating a feeling of kindness and love, being present, maintaining hope, maintaining meaning and purpose, holding a patient's hand, respect, and active listening. The items were preceded by the phrase 'When providing nursing care to your patients, how often did you...'. All items had a four-point Likert scale response format: 1 – 'never', 2 – 'rarely', 3 – 'sometimes', 4 – 'always'. The overall SCIPS score is computed by summing responses to all 17 items for a range of 17 to 68 with higher scores indicate a greater provision of spiritual care interventions.

Other measures

Religiosity Scale

Religiosity was measured by religious behaviour and attitudes (Makros & McCabe 2003). This scale was developed by the primary investigator based on a literature review and the judgments of an expert panel, which consisted of two PhD members specialising in Islamic religious studies and another member with a doctoral degree in Linguistics (Arabic language). Religious behaviour items consisted of four Likert scale format questions about the frequency of praying, attending the mosque to pray, reading from the Qur'an, and meditating (*dhikr*). For male, religiosity was measured by an additional item. This item refers to the frequency of mosque attendance. It is not suitable for women from the Islamic perspective to attend the mosque for a collective prayer. All religious behaviour items are answered on a five-point Likert scale ranging from 'not at all' (coded as 1), to 'five times a day' (5) for the frequency of praying and attending the mosque to pray items, from 'not at all' (1), to 'one time or more a day' (5) for reading from the Qur'an item, and from 'not at all' (1), to '16 or more per week' (5) for meditating item. One item was designed to measure religious attitudes where participants were asked the importance of their faith to them. This item is answered on a five-point Likert scale ranging from 'Unimportant' (1) to 'Very important' (5). Accordingly, the total scores of the religiosity for males range from 5 to 25 and for females range from 4 to 20 with a higher score representing greater religiosity. In order to measure religiosity as a one variable for all participants, z scores of total religiosity were calculated separately for men and women and then combined them together to represent one variable.

Sample and setting

A convenience sample of 360 Jordanian Arab Muslim nurses was recruited from both public and private hospitals in northern and central Jordan. Inclusion criteria required participants who were nurses working a full-time day or night duty; could read, write and clearly understand Arabic; were qualified with a minimum of a three-year diploma; and were able to comprehend and respond to study questions. The age of participants was 21 to 52 years ($M=30.6$, $SD=6.3$). Of the participants, 40.3% ($n=145$) were men and 59.7% ($n=215$) were women. A majority of the participants (76.9%, $n=276$) had an undergraduate level of education.

Procedure

An Institutional Review Board in a governmental university granted ethical approval for this study and permission was obtained from the hospitals. All questionnaires were distributed during nurses' duty time after obtaining the head or in-charge nurses' permission. This study was low-risk with minimal risk for the nurse participants. The questionnaire items relate to their own practice and are anonymous. Information sheets regarding the purpose and nature of the study, maintaining anonymity and confidentiality, and the rights of participants were provided in a hard copy letter and reiterated in a discussion with each participant. The completion and return of the anonymous questionnaire was taken as consent for participation in the study and for the data to be used. This form of consent was explained in the information sheet and is common practice for low-risk, paper-based projects. Questionnaires required about 10–15 minutes to complete. Data were collected during a five-month period in 2012.

Analysis

Data analysis was conducted using SPSS Version 17. Bivariate analysis was used to examine associations between the SCIPS total score and its subscales, and religiosity and to examine whether significant differences existed between groups in the demographic variables. The psychometric properties of the SCIPS, and its subscales, were assessed by evaluating internal consistency (Cronbach's alpha, the mean inter-item correlation, and the corrected item-total correlations), internal structure of the SCIPS using exploratory factor analysis, and correlation between the SCIPS and religiosity. The factor analysis used principal components extraction with oblique rotation. Based on the recommendation of at least 10-15 participants per item of an instrument to perform factor analysis (Field 2005, Munro 2005), the sample size of 360 was sufficient to perform factor analysis for this scale. Multiple criteria methods, including Kaiser, scree test and interpretability criteria, were used to determine the number of factors to be retained. For Kaiser's criterion to be accurate, the mean of the communalities must exceed 0.60 with sample size greater than 250 or exceeding 0.7 with number of variables less than 30 (Field 2005). With a sample size greater than 200 participants, the scree test provides a fairly reliable criterion to determine how many factors to retain (Stevens 1996). Meeting the interpretability criterion required a minimum of three variables loaded significantly per factor, loading of each variable strongly on one factor only and weakly on other factors, and a conceptual meaning of the resulted solution (Santos & Clegg 1999). A cut-off point of 0.40 was set as a minimum acceptable loading criterion for a sample size of 360. The naming of factors was based on the relevant items with respect to the magnitude of their factor loadings (Waltz et al. 2010).

RESULTS

Using Kaiser's eigenvalue-greater-than-one criterion alone, four factors were identified. However, according to the defining rules of accuracy of the Kaiser's criterion depending on the sample size, number of variables, and communality it may not be accurate to determine number of factors to retain. Alternatively, the scree test was used. By examining the scree test there was a logical breaking point at the third factor where the curve flattened out, suggesting potential for a two-factor solution. The first two factors together accounted for a relatively large amount of variance (42.88%) between items and met the interpretability criterion. The two-factor solution exhibited the "cleanest" factor structure and the best fit to the data matching a conceptual meaning. Thus, it was decided to extract only two factors. It is noteworthy that these two factors had acceptable to high internal consistency, with Cronbach's alpha ranging from 0.77 to 0.83, which further supports choosing the two-factor solution. Table 1 presents the two-factor structure matrix of the factor loadings for each item onto each factor. The strongest loadings are shown in bold. The nine items in factor 1 measure existential aspects of spiritual care intervention and so is labeled "Existential Spiritual Care Intervention-Provision" (ESCIP). All eight items in factor 2 measure religious aspects of spiritual care intervention and so is labeled "Religious Spiritual Care Intervention-Provision" (RSCIP).

< Table 1 about here >

Table 2 presents the descriptive statistics of the SCIPS, its subscales, religiosity, and age. The Cronbach's alphas (0.77 to 0.85) for the overall SCIPS and its subscales were acceptable to high. The mean inter-item correlation for the overall SCIPS and its subscales fall within the optimal range from 0.2 to 0.4 (Briggs & Cheek 1986). No inter-item correlations were beyond 0.7, suggesting no item redundancy. The corrected item-total correlations for all items exceeded the recommended minimum criterion of 0.3 (Field 2005).

< Table 2 about here >

There was a moderate and statistically significant positive correlation between the two subscales of the SCIPS ($r = 0.51, p < 0.001$), suggesting that there is enough unique variance to confirm that these are related but separate constructs. The SCIPS had a statistically significant low positive correlation with the religiosity ($r = 0.18, p < 0.01$) and age ($r = 0.14, p < 0.01$). Similarly, the ESCIP subscale had a statistically significant low positive correlation with the religiosity ($r = 0.17, p < 0.01$) and age ($r = 0.15, p < 0.01$). The RSCIP subscale had a statistically significant low positive correlation with the religiosity ($r = 0.14, p < 0.01$) and a non-significant correlation with age. All correlations among the SCIPS, its subscales, religiosity, and age are shown in Table 3.

< Table 3 about here >

Means and standard deviations of the SCIPS total score and its subscales by gender and education variables are presented in Table 4. Of these socio-demographic variables, only gender had significant differences for the SCIPS total score and the RSCIP subscale with men reporting higher mean scores on the SCIPS and the RSCIP subscale than women.

< Table 4 about here >

DISCUSSION

This study presented the development and psychometric testing of the SCIPS in a sample of Jordanian Arab Muslim nurses. This newly developed scale balances the aspects of religious and existential dimensions of spiritual care intervention and is a culturally-specific instrument designed to measure Arab Muslim nurses' frequency of providing various aspects of spiritual care intervention to their Arab Muslim patients. The development process included patients' views of important aspects of spiritual care provided by nurses.

The findings of this study provided acceptable evidence that the SCIPS is a reliable and valid instrument among Jordanian Arab Muslim nurses but further research studies in other Arab countries are needed to test its generalizability. The SCIPS was carefully translated and formulated by two groups of expert panel using simple and common literal Arabic terms, which may allow for its use with other Arab Muslim people. However, this is the first study globally to develop a scale measuring the provision frequency of spiritual care interventions with a balance between various aspects of religious and existential dimensions of spiritual care intervention.

This study provided preliminary evidence of internal consistency and validity for the SCIPS. Values of Cronbach's alpha, the mean inter-item correlation, and the corrected item-total correlations measures for the overall SCIPS and its subscales in the current study revealed that these scales have good reliability, suggesting the homogeneity of the scales' items in measuring the construct of spiritual care intervention and its dimensions (religious and existential dimensions) and that each item was measuring a unique aspect. The exploratory factor analysis supported a two-factor structure for the SCIPS as hypothesized, with all 17 items loading strongly (between 0.46 and 0.79) onto one of the two factors and accounting for 42.88% of the variance. This implied that the nursing spiritual care intervention for Arab Muslim patients in the Arab-Islamic culture consisted of horizontal (existential) and vertical (religious) aspects of spiritual care. The resultant two-factor structure of the Arabic SCIPS was consistent with those of several authors who described spirituality as a dual concept composed of both religious and existential dimensions using Western samples (Ellison 1983, McSherry *et al.* 2002, Baldacchino & Buhagiar 2003, Sawatzky & Pesut 2005, Ross 2006) and Arab Muslim samples (Musa & Pevalin 2012, Musa 2014). Alongside the extensive literature search, the judgments of the expert panel, and the findings of pre-testing the provisional scale which included patients' views further supported that the items of the SCIPS cover the construct of spiritual care intervention.

In addition, a significant positive correlation between the SCIPS and religiosity was in the expected direction though small in magnitude. It has been documented by Polit (2010) that correlations between psychosocial variables rarely exceed 0.50. This finding revealed that there is a relationship between a personal nurse factor (religiosity) and the frequency of providing spiritual care intervention. Those nurses scoring higher in their personal attitudes towards religiosity also scored higher in their spiritual care intervention. The significant low correlation between spiritual care practice and religiosity in the current study is consistent with the findings of previous studies investigating correlations between personal religiosity and spirituality, and spiritual care practice in samples of nurses (Vance, 2001, Mamier & Taylor 2014).

The deleted two items from the Arabic SCIPS during the developing process which were perceived as the least important by the majority of patients (listening to music and completing

unfinished business) have a basis in the Arab-Islamic religion and culture. The Islamic teachings do not consider music righteous. In addition, traditionally in the Arab-Islamic culture, family members, or sometimes close friends, take the responsibilities in accomplishing personal and social activities outside the hospital environment for their patients.

Some limitations to this study should be noted. Although the sample was reasonably large, the SCIPS was tested on a convenience and homogeneous group of Arab Muslim nurses therefore, generalization of the findings to the total population of Jordanian nurses cannot be assumed. Future studies are recommended to examine the validity and reliability of this scale using samples of Jordanian non-Muslim nurses and samples of Arab Muslim nurses from different countries. Although the Arabic SCIPS and its subscales in this study exhibited acceptable reliability and validity, it is recommended to continue examining its reliability and validity, using other alternative tests such as test-retest reliability and discriminant validity.

Conclusion

This study was a first step in the development of a valid and reliable instrument for the assessment of provision of spiritual care intervention by nurses that balanced the religious and existential dimensions of spirituality. The resultant two-factor structure of the SCIPS were psychometrically sound in terms of obtaining a simple factor structure, easily interpretable and had a conceptual meaning. Moreover, findings of this study supported the multidimensional nature of the spiritual care intervention. The overall scale and its subscales exhibited acceptable evidence of internal consistency and validity among Jordanian Arab Muslim nurses. Further work is needed to firmly establish all aspects of this new scale by such ways as examining correlations between the SCIPS and other well-researched instruments measuring spiritual care practice and assessing the internal structure of the SCIPS using various samples of Arab Muslim nurses.

Relevance to clinical practice.

Several implications for nursing practice can be drawn from this study. Establishing a spiritual care intervention scale is important because it contributes to the evaluation of the provision of spiritual care to Arab Muslim patients, to guide them in providing a comprehensive and appropriate spiritual care interventions, and to examine the effect of spiritual care on various aspects of patient's quality of life. The SCIPS can provide Jordanian nurses, nursing managers, and nursing educators with information about aspects of spiritual care intervention where nurses should receive training to become competent in providing this care to their patients. Future studies are recommended to evaluate the influence of such training programs on improving the performance of nurses in spiritual care provision using SCIPS as an evaluation tool. Al Qadire (2014) found that Jordanian registered nurses' have insufficient knowledge of the total palliative care and the psychosocial and spiritual care dimension of palliative care exhibited the lowest mean score. Content of the SCIPS can help and encourage nurse administrators to decide what facilities and requirements must be provided to promote a quiet, religious encouraging, and private environment in which the patient's spiritual beliefs and activities are respected and facilitated.

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Table 1 Rotated Factor Structure of the 17-item SCIPS. Jordanian Arab Muslim Nurses, N=360.

Factors	Items	ESCPS	RSCPS
1	15 Help your patients to feel hopeful and to keep a positive outlook.	0.793	0.194
	14 Create a feeling of kindness, cheerfulness, and intimacy when giving care to your patients	0.772	0.207
	17 Hold your patients' hand or put your hand over their shoulders to give them support and reassurance.	0.670	0.323
	10 Respect patients' privacy, dignity, religion, and religious and spiritual beliefs and rituals.	0.663	0.124
	16 Encourage laughter or introduce appropriate humour.	0.623	0.274
	2 Give your patients the opportunity to talk about God and support coming from God in time of illness.	0.613	0.341
	1 Listen actively to your patients talk about their religious/spiritual beliefs, practices, and beliefs about God.	0.595	0.495
	13 Spend time with your patients giving comfort, support, and reassurance when needed.	0.560	0.365
	12 Help your patients to become aware of meaning and purpose of life in facing and suffering from illness.	0.540	0.446
	2	7 Give them the opportunity to participate in religious or spiritual events arranged on the ward (e.g. praying with others or visiting other patients in the hospital).	0.260
6 Help your patients listen to religious programs on radio or TV if available.		0.243	0.696
9 Arrange a visit by the hospital imam to comfort and support your patients if requested by them.		-0.013	0.639
4 Provide your patients with a suitable place to pray, read the Qur'an, meditate, and/or do ablution.		0.391	0.627
5 Facilitate utilization of religious/spiritual resources available in the hospital (e.g. common prayer room, the Holy Qur'an book, rosary, prayer rug, and/or prayer direction signs).		0.328	0.622

8	Offer to discuss with your patients the difficulties of practicing prayer when sick and the proper ways of washing and cleaning their bodies and clothes for praying.	0.253	0.614
3	Offer to read from the Qur'an on your patients or to share prayer and meditation with them.	0.367	0.540
11	Give patients' family or close friends the opportunity to visit your patients and to share prayer, reading from the Qur'an, and meditation with them.	0.348	0.445
Eigenvalue		5.34	1.95
Percent of Variance Explained		31.41%	11.47%
Cumulative Percent		31.41%	42.88%

Table 2 Descriptive statistics of the 17-item SCIPS, its subscales (RSCIPS and ESCIPS), Religiosity, and Age. Jordanian Arab Muslim Nurses, N=360.

Scale	No. of items	Range of scale scores		Mean	SD	Min	Max	Cronbach's alpha	Mean Item-Scale Correlation	Mean Inter-Item Correlation
		Mean	SD							
SCIPS	17	17 - 68	52.4	8.7	20	68	0.85	0.47	0.26	
RSCIPS	8	8 - 32	21.8	5.3	8	32	0.77	0.54	0.30	
ESCIPS	9	9 - 36	30.5	4.7	12	36	0.83	0.47	0.36	
Religiosity for Male	5	5 - 25	19.0	2.9	11	25	-	-	-	
Religiosity for Female	4	4 - 20	17.0	2.4	10	20	-	-	-	
Age	-	-	30.6	6.3	21	52	-	-	-	

SD, standard deviation;
 SCIPS, Spiritual Care Intervention-Provision Scale;
 RSCIPS, Religious Spiritual Care Intervention-Provision Subscale;
 ESCIPS, Existential Spiritual Care Intervention-Provision Subscale.

Table 3 Correlations between the 17-item SCIPS, its subscales (RSCIPS and ESCIPS), Religiosity, and Age. Jordanian Arab Muslim Nurses, N=360.

	SCIPS	RSCIPS	ESCIPS	Religiosity
RSCIPS	0.89**			
ESCIPS	0.83**	0.51**		
Religiosity	0.18**	0.14**	0.17**	
Age	0.14**	0.10	0.15**	0.22**

** p<0.01 (2-tailed);

SCIPS, Spiritual Care Intervention-Provision Scale;

RSCIPS, Religious Spiritual Care Intervention-Provision Subscale;

ESCIPS, Existential Spiritual Care Intervention-Provision Subscale

Table 4 Means and Standard Deviations of the 17-item SCIPS and its Sub-scales by Demographic Variables. N=360.

Demographic variables	Categories	N	SCIPS		RSCIPS		ESCIPS	
Gender	Men	145	53.9*	(8.9)	23.0*	(5.2)	30.9	(4.8)
	Women	215	51.4	(8.5)	21.1	(5.3)	30.3	(4.6)
Education	College	68	53.2	(7.4)	21.9	(4.8)	31.2	(3.7)
	Undergraduate	276	52.2	(9.0)	21.8	(5.5)	30.3	(5.0)
	Postgraduate	15	53.2	(8.4)	22.0	(5.7)	31.2	(3.8)

Note: *independent-samples t-test, $p < 0.01$; standard deviations in brackets.

APPENDIX I The Arabic SCIPS with its direct English translation

Item	Arabic	Direct English translation
1	تصغي باهتمام إلى أحاديث مرضاك عن إيمانهم بالله ومعتقداتهم الدينية والروحانية والطقوس الدينية التي يودون القيام بها.	Listen actively to your patients talk about their religious/spiritual beliefs, practices, and beliefs about God.
2	تعطي مرضاك الفرصة للتحدث عن الله جل جلاله وعونه لهم أثناء المرض.	Give your patients the opportunity to talk about God and support coming from God in time of illness.
3	تسأل مرضاك أن تقرأ عليهم آيات من القرآن الكريم أو تشاركهم في الصلاة جماعة والدعاء.	Offer to read from the Qur'an on your patients or to share prayer and meditation with them.
4	تساعد مرضاك في تأمين المصلى لأداء الصلاة وتلاوة القرآن والدعاء ومكان مناسب للوضوء.	Provide your patients with a suitable place to pray, read the Qur'an, meditate, and/or do ablution.
5	تسهل على مرضاك استخدام المصادر الروحانية المتوفرة في المستشفى مثل مصلى المستشفى أو توفير نسخ من القرآن الكريم أو مسابح أو سجاد للصلاة أو لوحات اتجاه القبلة.	Facilitate utilization of religious/spiritual resources available in the hospital (e.g. common prayer room, the Holy Qur'an book, rosary, prayer rug, and/or prayer direction signs).
6	تساعد مرضاك في متابعة البرامج الدينية في الإذاعة أو التلفاز إن وجدت.	Help your patients listen to religious programs on radio or TV if available.
7	تهيئ لمرضاك الفرصة للمشاركة في أداء الشعائر الدينية مثل صلاة الجماعة، أو الأعمال الروحانية كزيارة المرضى، التي قد ترتب في الجناح الذي يقيم فيه.	Give them the opportunity to participate in religious or spiritual events arranged on the ward (e.g. praying with others or visiting other patients in the hospital).
8	تناقش مع مرضاك معوقات أداء الصلاة أثناء المرض و الطرق المناسبة للاغتسال و النظافة من أجل الصلاة.	Offer to discuss with your patients the difficulties of practicing prayer when sick and the proper ways of washing and cleaning their bodies and clothes for praying.
9	تنظم لمرضاك بناء على طلبهم، زيارة يقوم بها أحد الأئمة أو الوعاظ أو المرشدين لتقوية عزيمتهم إذا طلبوا ذلك.	Arrange a visit by the hospital imam to comfort and support your patients if requested by them.
10	تحترم خصوصية مرضاك، كرامتهم، ديانتهم، معتقداتهم، وشعائرهم الروحانية.	Respect patients' privacy, dignity, religion, and religious and spiritual beliefs and rituals.
11	تهيئ الفرصة لعائلات مرضاك أو أصحابهم بان يقوموا بزيارتهم و مشاركتهم الصلاة و قراءة القرآن و الدعاء.	Give patients' family or close friends the opportunity to visit your patients and to share prayer, reading from the Qur'an, and meditation with them.

12	تساعد مرضاك في فهم معنى الحياة وهدفها مع وجود المرض وما يرافقه من معاناة.	Help your patients to become aware of meaning and purpose of life in facing and suffering from illness.
13	تقضي مع مرضاك وقتا لتبث في نفسهم الطمأنينة و السكينة وتشد من أزرهم، كلما دعت الحاجة.	Spend time with your patients giving comfort, support, and reassurance when needed.
14	تشعر مرضاك باللطف و البهجة و المودة أثناء رعايتهم.	Create a feeling of kindness, cheerfulness, and intimacy when giving care to your patients.
15	تساعد مرضاك بالشعور بالأمل و التفاؤل.	Help your patients to feel hopeful and to keep a positive outlook.
16	تضحك مرضاك و توفر لهم جو من المرح بشكل يناسبهم.	Encourage laughter or introduce appropriate humour.
17	تمسك بيد مرضاك أو تضع يدك على كتفهم لتشد أزرهم وتطمئنهم.	Hold your patients' hand or put your hand over their shoulders to give them support and reassurance.
