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ORIGINAL PAPER

Psychometric Evaluation of the Turkish Form of the Spiritual Care Competence Scale

Safak Daghan[1] · Asli Kalkim[1] · Tulay Sağkal Midilli[2]

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Abstract The methodological study was aimed to assess the psychometric properties of the Turkish version of the Spiritual Care Competence Scale (SCCS-T). The research was conducted on final-year Turkish nursing students (n = 297) in the faculties of nursing and health science in two cities in the western part of Turkey. Exploratory factor analysis revealed that three factors accounted for 75.18% of the explained variance. The Cronbach's alpha coefficient for the SCCS-T was .97. The three-factor model of the SCCS-T was found to be a reliable and valid scale for evaluating spiritual care competencies of Turkish nursing students and nurses.

Keywords Competence · Nursing · Reliability · Spiritual care · Validity

Introduction

Spirituality, an important and integral aspect of nursing care, was supported in nursing history and theory and validated in research and practice (Taylor 2002; Çoban et al. 2015). Spirituality as a concept is variable (Lewinson et al. 2015) or mixed. There is no consensus as to exactly what constitutes spirituality in the literature (Lewinson et al. 2015; Sessanna et al. 2007). The concept is very wide, ambiguous, and difficult to formulate, making it open to misunderstandings and misinterpretations (Lewinson et al. 2015; Tiew et al. 2013).

✉ Asli Kalkim
aslikalkim@gmail.com

Safak Daghan
safak.daghan@ege.edu.tr

Tulay Sağkal Midilli
tulay.sagkal@cbu.edu.tr

[1] Department of Public Health Nursing, Ege University Faculty of Nursing, Izmir, Turkey

[2] Department of Nursing, Celal Bayar University Faculty of Health Sciences, Manisa, Turkey

Lepherd (2015) stated that a person's ethnic origin, or culture, and environment, and within the same broad culture had their different views about spirituality.

Spiritual care is recognized as a central element of holistic nursing (Miner-Williams 2006), but has not been explicitly integrated into practice (Narayanasamy 2006; Milligan 2004). Spiritual care in all its diverse forms can highlight the importance of meaning, purpose, hope and relatedness for individuals experiencing the illness (Tiew et al. 2013).

McMullan et al. (2003) defined competency as "person oriented, referring to the person's underlying characteristics and qualities that lead to an effective and/or superior performance." Van Leeuwen et al. (2009) defined spiritual care competences as the knowledge, skills, and attitudes needed for the delivery of spiritual care. Van Leeuwen and Cusvellar (2004) found three core domains of nursing competencies for spiritual care, namely awareness and use of self, spiritual dimensions of the nursing process, and assurance and quality expertise. On the other hand, Ross et al. (2016) found that the perception of spirituality/spiritual care and a student's personal spirituality were significantly related to perceived spiritual care competency.

According to Tiew et al. (2013), over the past 30 years, spirituality has become an increasing recognition for nursing care, but little is known about how spirituality is taught, understood, and practiced by student nurses in their professional careers. In the literature, it has been indicated that students accept the importance of learning spiritual competence to provide spiritual care and of the assessment of the spiritual needs of the patients (Lewinson et al. 2015). However, research relating to spiritual competencies in nursing and holistic care is sparse and also no explicit competency framework or assessment tool, except for the one used by van Leeuwen et al. (2009) to assess the effect of education on the ability to deliver spiritual care. Therefore, van Leeuwen et al. (2009) developed a valid and reliable instrument, the spiritual care competence scale, as an instrument to assess nurses' competencies among nursing students in providing spiritual care. Since spiritual care is a human need in holistic care, it is an extremely important issue for nurses who are in contact with individuals when they are healthy or sick. However, over the last 10 years, researches about spirituality and spiritual care have been carried out in Turkey. Studies conducted in Turkey have revealed that the concept of spiritual care does not get the attention it deserves in practice and in the nursing curriculum, and is disregarded (Kavak et al. 2014; Yılmaz and Okyay 2009; Kostat et al. 2010) and that nurses lack knowledge about spirituality and spiritual care (Eglence and Simsek 2014; Yılmaz and Okyay 2009; Çetinkaya et al. 2013). Another important factor for nurses not being able to meet the spiritual needs of patients sufficiently is their lack of education on the topic (Eglence and Simsek 2014; Yılmaz and Okyay 2009; Kostak et al. 2010; Çetinkaya et al. 2013; Ozbasaran et al. 2011).

In their literature review of studies conducted in various countries, Lewinson et al. (2015) emphasized that specific education and experience are needed to build nursing students' competence and confidence. They also report that if the course taken by nurse students includes necessary information and skills, this will contribute to their competence in providing spiritual care and that the students' own beliefs will contribute to their ability to provide spiritual care (Lewinson et al. 2015). Van Leeuwen et al. (2008) suggested that nursing students' education had an important effect on the development of competencies in spiritual care and that spiritual care presented to student nurses as a theory in the nursing curriculum. As far as we know, five studies have been performed on the reliability and validity of the scales used to assess spirituality and spiritual care in Turkey (Çoban et al. 2015; Kavas and Kavas 2014; Ergül and Temel 2007; Kasapoglu 2015; Bedel and Scherler 2009) (Table 1). Three of these studies (Ergül and Temel 2007; Kavas and Kavas 2014; Çoban et al. 2015) were performed in the nursing field. However, our search for studies

Table 1 Instruments used in studies to assess spirituality and spiritual care in Turkey

Author(s), year of publication	Developed by who	Instrument and subscale	Sample, sample size	Scale, Likert type	Cronbach's alpha
Ergül and Temel (2007)	McSherry et al. (2002)	Spirituality and Spiritual Care Rating Scale (SSCRS) Has 17 items and Four subscale; Spirituality, Spiritual Care, Religiosity, and Personalized Care	Nursing academics with Ph.D., 144	Rating 1–5 1 = strongly disagree 5 = strongly agree	0.76
Bedel and Scherler (2009)	Delaney (2003)	Spirituality Scale (SS) Has 23 items and three subscale	Adult participant, 713	Rating 1–6 1 = strongly disagree 6 = strongly agree	SS was found to be neither reliable nor valid
Kavas and Kavas (2014)	development, validity and reliability developed by own	Spiritual Support Perception (MDA) Scale Has 15 items	Doctors, Nurses and Midwives, 244	Rating 0–4 0 = strongly disagree 4 = strongly agree	0.94
Kasapoglu (2015)	Development, validity, and reliability developed by own	Spiritual Orientation Scale (SOS) Has 16 items	University students in different faculties, 872	Rating 1–7 1 = strongly disagree 7 = strongly agree	0.84
Çoban et al. (2015)	Tiew and Creedy (2012)	Spiritual Care-Giving Scale (SCGS) Has 35 items and Five subscale: General Properties of Spiritual Care, Spirituality Perspectives, Defining Spiritual Care, Spiritual Care Practices and Spiritual Care Attitudes	Nursing students, 348	Rating 1–5 1 = strongly disagree 5 = strongly agree	0, 96

assessing nurses' or nursing students' adequacy in providing spiritual care demonstrated a gap in the Turkish literature. Although considerable research has been devoted to educational applications for the development of spiritual care and assessments are made at the end of the training in other countries (van Leeuwen et al. 2008; Chung and Eun 2011; Hofferrt et al. 2007; Lopez et al. 2015; Lovanio and Wallace 2007), Turkish literature lacks studies investigating whether education is given to develop spiritual care, or if given, whether the education has any effect on the development of spiritual care.

What is more, no measurement tool is available to assess the training designed to develop spiritual care. Therefore, in planning spiritual care education in Turkey, there is a need for a measurement tool to be used to determine topics that nurses need to know and the adequacy of nurses in providing spiritual care. The aim of the study was to assess the psychometric properties of the Turkish version of the Spiritual Care Competence Scale (SCCS-T).

Methods

Participants

The study designed as a methodological one was carried out in a faculty of health science in a city, and a nursing faculty in a city, provinces located in the western part of Turkey, between March and June 2016.

The schools where the study was conducted were chosen by the non-probability sampling method, because they were easily accessible for the researchers. Both of the schools offer final-year nursing education at the level of bachelor degree. The population of the study included 384 final-year Turkish nursing students. In instrument testing, experts recommend including 5–10 people for every item on the instrument (Aksayan and Gözüm 2002). Additionally, at least five people per item are necessary to perform a factor analysis (DeVellis 2012; Jonhson and Christensen 2014; Hayran and Hayran 2011). The study sample consisted of 292 subjects to test the reliability and validity of the SCCS-T, which consists of 27 items.

The criteria for inclusion in the study were (a) being a student in the nursing departments where the study was conducted, (b) speaking Turkish, (c) being Muslim, having clinical experience, (d) being present in the faculties during the research period, and (e) willing to participate in the study.

Data Collection and Instruments

The study data were collected with the nursing student socio-demographic characteristics questionnaire and the SCCS-T.

Nursing student socio-demographic questionnaire: the questionnaire was prepared by the researchers (Ozbasaran et al. 2011; Hofferrt et al. 2007; Hsiao et al. 2010; Lovanio and Wallace 2007; Tiew et al. 2013) and consisted of 6 items questioning the participants' socio-demographic characteristics such as age, gender, marital status, family type, the school where the nursing students study, and the working status as a nurse work.

The Spiritual Care Competence Scale (SCCS): the scale was developed by van Leeuwen et al. (2009) in the Netherlands. The scale includes the following six subscales on nurses' competence level regarding spiritual care: assessment and implementation of spiritual care,

professionalization and improving the quality of spiritual care, personal support and patient counseling, referral to professionals, attitude toward the patient's spirituality, and communication (van Leeuwen et al. 2009).

The scale is a 5-point Likert-type scale, strongly disagree (1), disagree (2), neither agree or disagree (3), agree (4), and strongly agree (5). The scale consists of 27 items. No item is reverse-scored. The minimum and maximum possible scores to be obtained from the scale were 27 and 137, respectively. The higher score is shown to be the nursing competence associated with spiritual care. The Cronbach's alpha value for the subscales was .82 for the assessment and implementation of spiritual care, .82 for the professionalization and improving the quality of spiritual care, .81 for the personal support and patient counseling, .79 for the referral to professionals, .56 for the attitude toward the patient's spirituality, and .71 for the communication (van Leeuwen et al. 2009).

Procedure

Language Adaptation

The scale was translated into Turkish by two independent bilingual language experts. After it was translated into Turkish, the translated version was reviewed by the researchers. Then, another language expert back-translated it (DeVellis 2012; Jonhson and Christensen 2014; Hayran and Hayran 2011).

Content Validity of SCCS-T

Researchers recommend that at least three experts give their opinion to determine whether the translation form is equivalent to the original form and to calculate the content validity index (CVI) (DeVellis 2012; Jonhson and Christensen 2014; Hayran and Hayran 2011). Ten experts (experts from the departments of nursing) were asked to assess the convenience of the SCCS-T items on a scale of 1–4 (1 = not appropriate at all, 4 = completely appropriate). According to the literature on this topic (Polit and Beck 2006), a score of 1 and 2 indicates "invalid content," and a score of 3 and 4 shows "valid content." After that, for each item, the item level CVI (I-CVI) was computed as the number of experts giving a rating of 3 or 4 over the total number of experts. In order to compute the scale level CVI (S-CVI), the average ratios of the items which were regarded as relevant by all experts were computed (Polit and Beck 2006).

Pilot Test

The translated version was pilot-tested with 15 students who were not included in the study. Revisions suggested by these students were included in the final version of the instrument (Aksayan and Gözüm 2002).

Data Collection

The forms were handed out to the students in classrooms and were collected back by the researchers.

Statistical Analysis

Data were analyzed using the SPSS 21.0 for Windows. The CFA was calculated using the LISREL version 8. Socio-demographic data were analyzed using frequencies, means, and ranges as appropriate. Validity was examined through content validity and construct validity. Content validity was assessed using CVI. Construct validity was examined through the exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The lower cutoff point for the factor loading value was set at .30. Explained variance was used for determining the factors' structure. The Chi-square test (χ^2), degree of freedom (*df*), the ratio of *df* to χ^2 (χ^2/df), normed fit index (NFI), goodness-of-fit index (GFI), comparative fit index (CFI), incremental fit index (IFI), relative fit index (RFI), non-normed fit index (NNFI), and root-mean-square error of approximation (RMSEA) goodness-of-fit indices were assessed for this model. Cronbach's alpha, Spearman-Brown, item total subscale correlation, and floor and ceiling effects were used for reliability analysis. The correlation between item total scores was examined using the Pearson correlations analysis. To test the reliability of the scale, the scale was administered to 30 students twice at a two-week interval. The test–retest stability was assessed using the dependent *t* test. Skewness and kurtosis were used to assess the normality of the variables. The significance level was accepted as $p < .05$.

Results

Participants' Characteristics

The students' ages ranged from 21 to 36 years (a mean age of 22.83 ± 1.57 years). Of the participants, 81.8% were female, 97.6% were single, 55.1% were students in the nursing faculty, 87.3% had a nuclear family, and only 6.8% of them were employed as nurses.

Validity Analyses

To ensure content validity, after consulting the ten experts, I-CVI was determined to be .80–1.00. S-CVI was determined to be .89.

According to EFA for construct validity, Kaiser–Meyer–Olkin (KMO) was .957, which was shown to be significant at an advanced level on Bartlett's test ($\chi^2 = 9015.361$, $p = .000$). In the six-factor model of the SCCS-T, based on the explanatory factor analysis, factor loadings ranged between .376 and .880, and the total variance was 82.94%. Items were loaded on three factors with an eigenvalue exceeding 1.0 which accounted for 75.18% of the total variance in this research.

In Table 2, the item factor loadings, eigenvalues and percentages of the explained variance are shown. In the three-factor model of the SCCS-T, factor loadings ranged between .436 and .895. Factor loadings of items in the first subscale (assessment and implementation of spiritual care) varied between .64 and .80; in the second subscale (professionalization and patient counseling in spiritual care), they varied between .44 and .86, and in the third subscale (attitude toward the patient's spirituality and communication), they varied between .83 and .90. The first, second, and third factors accounted for 60.51, 10.19, and 4.47% of the total variance of the SCCS-T, respectively (Table 2).

Table 2 Factor loadings for the three- and six-factor structures of the SCCS-T according to confirmatory factor analysis (n = 292)

Item no.	Six-factor structure of the SCCS-T						Three-factor structure of the SCCS-T		
	F1	F2	F3	F4	F5	F6	F1	F2	F3
1	0.572						0.644		
2	0.675						0.724		
3	0.744						0.758		
4	0.735						0.756		
5	0.813						0.796		
6	0.756						0.767		
7		0.541						0.704	
8		0.586						0.727	
9		0.547						0.658	
10		0.842						0.855	
11		0.853						0.848	
12		0.795						0.822	
13			0.376					0.620	
14			0.448					0.638	
15			0.553					0.592	
16			0.596					0.436	
17			0.635					0.437	
18			0.633					0.463	
19				0.612				0.541	
20				0.540				0.567	
21				0.654				0.611	
22					0.856				0.876
23					0.880				0.895
24					0.857				0.890
25					0.865				0.888
26						0.817			0.815
27						0.842			0.827
Explained variance (%)	60.51	10.19	4.470	3.357	2.408	1.800	60.51	10.19	4.470
T. explained variance (%)	82.94						75.18		
Eigen value	16.34	2.752	1.207	0.906	0.649	0.540	16.339	2.752	1.207

According to CFA for construct validity of a three-factor model, the factor loadings in the six-item first factor ranged from .80 to .90; it ranged from .68 to .92 in the 15-item second factor, and from .85 to .94 in the six-item third factor (Fig. 1).

Table 3 shows the model fit indices for the first and second models. The Chi-square values of both the 6-factor model (χ^2 at 876.26, df at 300, $p < .001$) and the 3-factor model (χ^2 at 1212.69, df at 314, $p < .001$) were significant.

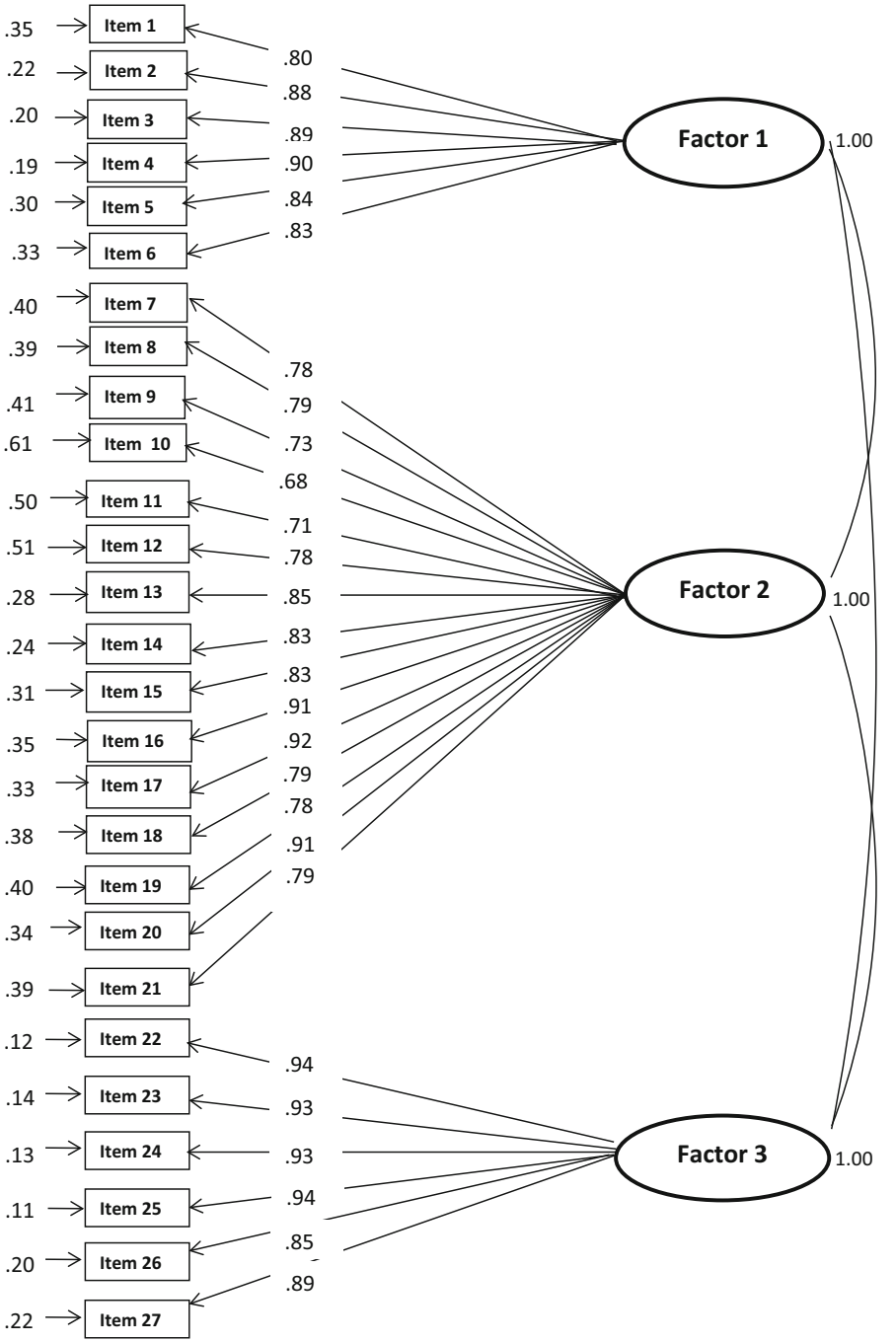

Fig. 1 Confirmatory factor analysis of SCCS-T. Chi-Square = 1212.69, $df = 314$, $p < .001$, χ^2/df at 3.86, GFI at 0.76, NFI at 0.97, CFI at 0.98, and RMSEA at 0.099

Table 3 Comparison of confirmatory factor analysis results for two models

Models	χ^2	*df*	*p*	χ^2/df	RMSEA	GFI	CFI	IFI	NFI	NNFI	RFI
Model 1 (three-factor structure)	1212.69	314	0.000	3.86	0.099	0.76	0.98	0.98	0.97	0.98	0.97
Model 2 (six-factor structure)	876.26	300	0.000	2.92	0.081	0.82	0.98	0.98	0.98	0.98	0.97

χ^2 Chi-square test, *df* degree of freedom, χ^2/df the ratio of *df* to χ^2, *GFI* goodness-of-fit index, *NFI* normed fit index, *NNFI* non-normed fit index, *CFI* comparative fit index, *IFI* incremental fit index, *RFI* relative fit index, *RMSEA* root-mean-square error of approximation

Reliability Analyses

The Cronbach's alpha coefficients of six-factor scale were between .89 and .97. The Cronbach's alpha coefficients of three-factor scale were .94 for the first factor, .96 for the second factor, and .97 for third factor. The Cronbach's alpha coefficient was .97 for the overall scale. While the Spearman-Brown coefficient was .88 for the overall SCCS-T, it was .93, .89, .96 for the first, second, third factors, respectively.

The floor and ceiling effects were 1.0 and 4.1% for the first factor, .7 and 2.1% for the second factor, 1.4 and 17.8% for the third factor, and .7 and 1.7 for the overall scale, respectively.

In the Hotelling's T^2 test (Hotelling's $T^2 = 180.860$, $F = 6.359$, $p = .000$), it was determined that the mean scores for the items were different. Item total subscale score correlations were determined to be .84–.91 for the first factor, .73–.88 for the second factor, and .89–.95 for the third factor. Item total score correlations were .62–.85 at a statistically significant level ($p < .001$).

The first administration mean score of the first factor was 22.37 ± 4.15, and that of the second administration was 22.76 ± 4.24 ($t = 0.367$, $p = 0.717$). For the second factor, these values were 55.00 ± 9.30 and 55.26 ± 11.02 ($t = 0.103$, $p = 0.919$), while for third factor, they were 23.96 ± 4.97 and 25.76 ± 4.24 ($t = 1.539$, $p = 0.614$). The first administration mean score of the overall scale was 103.40 ± 17.32, and that of the second administration was 101.73 ± 16.82 ($t = 0.377$, $p = 0.709$). In the assessment of the stability of the SCCS-T, no statistically significant differences were found in the mean scores obtained from the overall scale and the factors between the first and second administrations ($p > .05$).

Discussion

This study evaluated the psychometric properties of the Turkish version of the SCCS-T. The results showed that the psychometric characteristics of the Turkish version of this scale were promising. For the content validity of the scale, expert opinions were obtained, and the I-CVI and S-CVI were evaluated. In the literature, the CVI value is recommended to be higher than .80 (Yurdugul 2005; Burns and Grove 2009). In this present study, I-CVI and S-CVI values were higher than .80, which suggests that the items in the scale sufficiently represent the behavior/characteristic to be measured in terms of quantity and quality (Buyukozturk 2012).

In this present study, that the KMO value was .957 and that the Bartlett's test of significance value was $p < .001$ showed that the sample size was adequate and the data set was suitable for the factor analysis (DeVellis 2012; Jonhson and Christensen 2014; Hayran and Hayran 2011).

According to the exploratory factor analysis, factor loadings of the three-factor scale ranged between .44 and .90 (Table 2). The lower cutoff point for the factor loading value was set at .30 (Sencan 2005), and the items in the scale remained as in the original scale.

The SCCS-T showed a three-factor structure which explains 75% of the variance unlike the six-factor original scale. According to studies in social sciences, explained variance ratios of between 50 and 60% are generally thought to be fairly high (Pagano 2011; Balci 2011; Buyukozturk 2012). In the study in which the original scale was used, the 6-factor scale accounted for 53% of the variance.

The items which are in the "assessment and implementation of spiritual care" subscale of the original scale comprised the first factor group in the SCCS-T too. The three subscales "professionalization and improving the quality of spiritual care," "personal support and patient counseling," and "referral to professionals" were combined in the SCCS-T, and they comprised the second factor called "professionalization and patient counseling in spiritual care." The fifth subscale "attitude toward the patient's spirituality" and sixth subscale "communication" in the original scale were combined in the SCCS-T, and they comprised the third factor called "attitude toward the patient's spirituality and communication."

While the Cronbach's alpha coefficient of first subscale was .82 in the original scale, it was higher (.94) in this present study. The Cronbach's alpha values of the second, third, and fourth subscales in the original scale were .82, .81, and .79, respectively. The Cronbach's alpha value of the second factor in the SCCS-T which included second, third, and fourth subscales of the original scale was .94. The Cronbach's alpha values of the fifth and sixth subscales of the original scale were low (.56 and .71, respectively). The Cronbach's alpha value of the third factor in the SCCS-T which included fifth and sixth subscales of the original scale was quite high (.97). Since the Cronbach's alpha coefficient is required to be above .80 (Burns and Grove 2009; DeVellis 2012; Jonhson and Christensen 2014; Hayran and Hayran 2011; Kline 2011; Polit and Beck 2010), these results indicate that the reliability of the SCCS-T is quite high.

The "assessment and implementation of spiritual care" subscale which is the first factor includes the items which assess nurses' competence to identify patients' spiritual needs/problems and to plan spiritual care. The second factor of the SCCS-T "professionalization and patient counseling in the spiritual care" includes the main point of spiritual care: competence to support patients and to provide counseling for them. This factor includes the items which assess nursing activities aiming to ensure the quality of the spiritual care and to develop policies regarding the spiritual care, and nurses' competence to collaborate with patients and other team members in planning and reporting spiritual care. All these items refer to a nurse's professional practices in the provision of the spiritual care.

The nurse's attitude toward the patient's spirituality and his/her communication with the patient while providing spiritual care comprise the humanistic and interpersonal aspects of spiritual care (Ross et al. 2014). With the combination of these two elements in the "attitude toward the patient's spirituality and communication" subscale, spiritual care skills expected to be performed by the nurse within the scope of therapeutic communication process while providing care for the patient constituted another subscale of the SCCS-T.

Several goodness-of-fit indices were assessed in evaluating CFA. These study results show that the IFI, NFI, NNFI, RFI, and CFI were higher than .95, the indicative of a good model fit. Goodness-of-fit indices were sufficiently high for the three-factor and six-factor models (DeVellis 2012; Jonhson and Christensen 2014; Hayran and Hayran 2011; Vieira 2011). RMSEA is expected to be less than .08. However, these values were higher than 0.08 in both models. According to the goodness-of-fit indices obtained in this current study, the structure of the factors was confirmed and the model was determined to have a good fit.

The stability of the scale did not change over time. Floor effects were computed as the proportion of subjects who had the least scores possible, and ceiling effects were assessed as the proportion of subjects who had the greatest scores possible (Terwee et al. 2007). The floor or ceiling effects are said to be present if over 15% of subjects score the maximum or minimum, respectively. If floor or ceiling effects exist, extreme items are probably lacking

at the bottom or top end of the scale, showing limited content validity. As a result, subjects scoring the maximum or minimum cannot be separated. In this way, reliability declines (Terwee et al. 2007). In this study, the floor and ceiling effects were lower than 15%, which indicates a high level of reliability. However, it was 17.8% for the third factor. The current study results show that the scale has good internal consistency for the Turkish population. In the results of the study, item total subscale score correlations were .62 and above. Because the item total correlation was higher than .30, it is said that the scale can distinguish individuals well (Buyukozturk 2012). The item total subscale score correlation results showed that items have a strong correlation with the total score and have a good reliability level for the SCCS-T.

Conclusions

The results of the study show that the three-factor model of the scale is a valid and reliable instrument for Turkish society. These results show that the reliability of the items in the scale is high and that they distinguished nurses in terms of their spirituality competency. For nurses to have spiritual care competence, their perceptions of spirituality and spiritual care are important. Some researches carried out in Turkey (Ozbasaran et al. 2011; Eglence and Simsek 2014; Çetinkaya et al. 2013) showed that these perceptions of nurses were not clear enough. That the six factors related to spiritual care competence in the original scale were not disintegrated in the Turkish version can be regarded as an indicator of the absence of this clarity. In Turkey, the role of nurses in spiritual care is not clear. The results of the present study will bring nurses' competence related to this role in health system. Therefore, the scale is expected to be used in planning nurses' and nurse students' training on spiritual care, and determining topics they need to know and their adequacy in providing spiritual care.

We recommend the use of the SCCS-T. The study was performed with the final-year nursing students. Future studies on the issue can be conducted with nurses and nursing students in different years of the school, and the scale can be tested.

Limitations of the Study

That the study sample comprised only the fourth-year nursing students is the limitation of the study. It would be useful to conduct studies with nurses having clinical experience.

Ethical Considerations

Ethical approval to conduct this study was obtained from the administration faculties where the study was to be performed and the Ethics Committee of the University Medical Faculty (Approval No: 20478486-123). Informed consent was obtained orally from the students taking part in the research. Permission to adapt the SCCS to Turkish and to use it was received by e-mail from van Rene Leeuwen.

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Compliance with Ethical Standards

Conflict of interest The authors declare they have no potential conflict of interest.

Ethical Standards All procedures in this research were performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. Ethical approval to conduct this study was obtained from the administration faculties where the study was to be performed and the Ethics Committee of the University Medical Faculty (Approval No: 20478486-123). Permission to adapt the SCCS to Turkish and to use it was received by e-mail from van Rene Leeuwen.

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