Spiritual Care Competence of healthcare students

Validation of a Spiritual Care Competence Scale for students (SCCQ-s) in German language

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1. Background

Spiritual competence and Spiritual Care education remain one of the most important factors for implementing Spiritual Care within the healthcare system (Balboni & Balboni, 2019).

While several health care professionals confirm the importance of spirituality in healthcare, there is still a lack of competence in this field (Giezendanner, 2017). To overcome this lack of competence, Spiritual Care trainings and education can be helpful.

Over the last years, several instruments have been developed for assessing spiritual competencies of healthcare professionals (Frick et al. 2019; Van Leeuwen et al. 2009). However, there are no questionnaires that explicitly address the competencies of healthcare students during their education. None of those studies were specifically designed and adapted to students and their educational environment.

2. Objective

The present study developed and validated the Spiritual Care Competency Questionnaire for healthcare students (SCCQ-s) in German language. This version refers to the primary version (SCCQ) for healthcare profesionals (Frick et al., 2019)

This study aimed at verifying the applicability of the questionnaie for detecting students´ spiritual care competencies. Therefore, the reliability and factorial structure of the SCCQ-s was analyzed.

Competence measurements could serve as a starting point for future teaching development and teaching evaluation in Spiritual Care.

3. Method

Study design
· Anonymous, cross-sectional online survey
· Sample of healthcare students (medicine, psychology & psychotherapy, nursing)
· German speaking countries: Austria, Germany and Switzerland

SCCQ-s structure
· Initially 33 items
· 31 closed questions (4-point Likert scale: 1-strongly disagree, 2-disagree, 3-agree, 4-strongly agree)
· 2 open-ended questions (job-related spiritual competence, job-related spiritual responsibility)

Statistic
· 2-step factor analysis with the data, random split (50/50)
· Exploratory factor analysis (EFA) with one sample (SPSS 26.0)
· Confirmatory factor analysis (CFA) with the other sample (software R 4.0.2.)
· Internal consistency (Cronbach's alpha)

4. Results

4.1 Study Population

Gender		Age (years; M, SD)		Nationality		Studies	
Female	79,6 % (n=456)	Medicine	24,6 (±3,3)	Germany	72,8 % (n=416)	Medicine	47,8 % (n=272)
Male	19,5 % (n=111)	Nursing	24,8 (±8,2)	Switzerland	14,2 % (n= 81)	Nursing	34,3 % (n=195)
Non-binary	0,4 % (n= 2)	Psychology	32,6 (±8,6)	Austria	8,4 % (n= 48)	Psychology	17,9 % (n=102)

Table 1. Sociodemographic data

Confession	Catholic	Protestant	None	Other	Muslim	Jewish	N.s
Sample N= 571	35,7 % (n= 204)	27,7 % (n= 158)	25 % (n= 141)	2,4 % (n= 14)	2,4 % (n= 14)	0,1 % (n= 1)	2,4 % (n= 14)

Table 2. Religious affiliation

	Spirituality „ I am a spiritual person" Likert-Scale 1-4 (MW, SD)		Religiousness „I am a religious person" Likert-Scale 1-4 (MW, SD)		Meditation/ Spiritual Practice „I pray or meditate regularly" Likert-Scale 1-4 (MW,SD)	
Medicine	2,35	(± 0,91)	Medicine 1,92	(± 0,99)	Medicine	2,79 (± 1,1)
Psychology	2,61	(± 0,98)	Psychology 1,72	(± 0,89)	Psychology	2,55 (± 1,08)
Nursing	2,46	(± 0,85)	Nursing 2,39	(± 0,99)	Nursing	2,75 (± 1,09)
p < 0.00			p = 0.04		p= 0.29	

Likert Scale: R/S 1-strongly disagree, 2-disagree, 3-agree, 4-strongly agree);
M/SP 1- yes, regularly, 2- from time to time, 3- rarely, 4- never; P-value= analysis of variance (ANOVA)

Table 3. Self-assessment spirituality, religiousness, meditation/spiritual practice

5. Discussion and Conclusion

The present study confirms the reliability and validity of the SCCQ for students in healthcare (SCCQ-s). The SCCQ-s does not include every item of the primary version for health professions (SCCQ) and thus the structure is similar but different. The SCCQ-s represents a valid test instrument for measuring self-perceived spiritual competencies in a multidisciplinary training setting (medicine, psychology, nursing).

The SCCQ-s convinces through its 5-factorial model. Based on this factor model, spiritual competencies of students in health professions can be identified and named. In doing so, the SCCQ-s facilitates the question of how to define spiritual competencies of students.

In the future, the SCCQ-s could be used for further teaching development and teaching evaluation and thus contribute to an improved teaching and training situation in Spiritual Care.

Limitations: The SCCQ-s only measures self-perceived spiritual competencies. In this context, self-perceived competence can only be an approximation of the actual spiritual competence. Additionally, the SCCQ-s cannot address every aspect of spiritual competence. It focuses on the field of education and should only be used in this field.

4.2 Factor model

(1) Perception competences (PC)
(2) Documentation competences (DC)
(3) Exchange competences among students (EcC)
(4) Competences in conversation technique (CcT)
(5) Empathy competences (EC)

- EFA indicates a factor model with five factors (1) – (5) represented by 17 items

- Their internal consistency (Cronbach's alpha) is ranging from 0.65 to 0.85.

- For one factor (4) we got a less satisfactory cut-off reliability value (0.58).

- Competence in conversation techniques scored highest (M=3.01; SD=0.61), Documentation competence lowest (M=1.35, SD=0.56)

- EFA structure was confirmed with CFA, with very good model adequacy coefficients cfi = 0.96, tli = 0.94, rmsea = 0.05 srmr = 0.05.
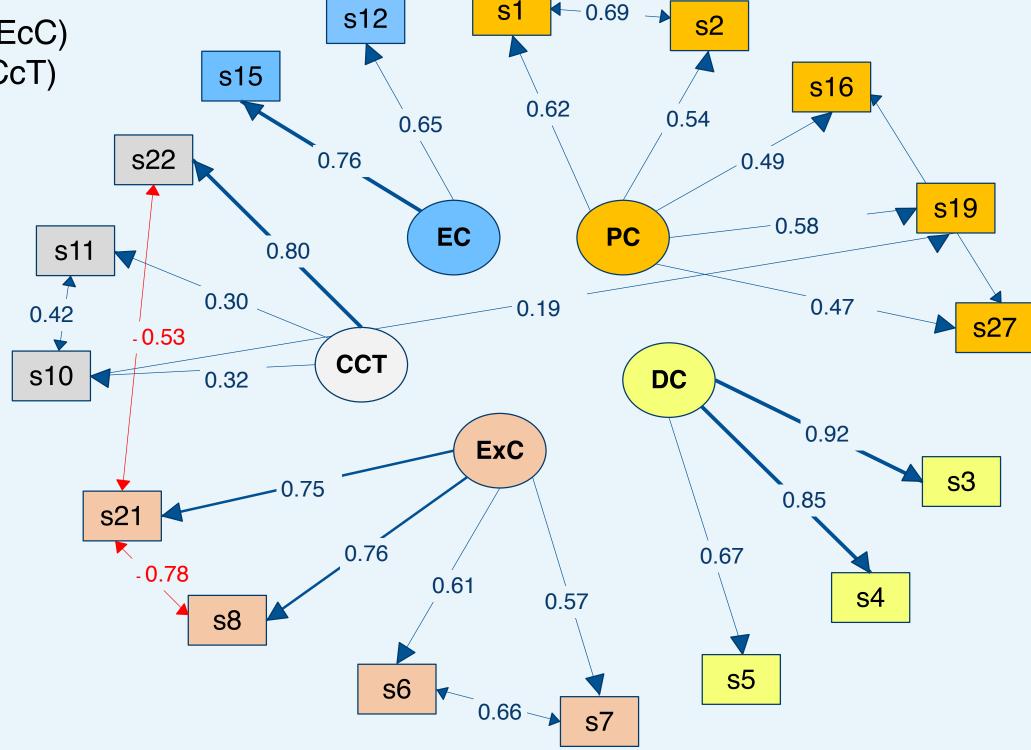

Figure 1. Confirmatory factor analysis, measurement model; factors=circles, variables (items)=squared boxes; one-way arrows: variable loadings for each factor with the respective loading value; two-way arrows: correlations between variables that are relevant for the CFA.

Sample EFA (50:50 split), N= 273		SCCQ-s Factors				
		1	2	3	4	5
		PC	DC	EcC	CcT	ET
Cronbachs alpha		**.76**	**.81**	**.80**	**.62**	**.69**
Mean (M) (*Likert-Scale: 1= totally disagree, 2=disagree, 3=agree, 4= totally agree*)		**2.59**	**1.35**	**1.66**	**3.01**	**2.79**
Standard deviation (SD)		.64	.56	.60	.61	.73
Item-number, shortened item-formulation						
1	Able to perceive spiritual needs of patients	.721	.321		.304	
27	Deepening one's spirituality	.720				
16	Own spirituality shapes interaction with patients	.696				
2	Able to perceive spiritual needs of relatives	.675	.349			
19	Provides an appropriate setting for spiritual conversations	.455				
4	Knows instruments/questionnaires to capture spiritual needs		.878			
3	Knows instruments/ topic list for s short anamnesis		.820			
5	Knows how to document a spiritual anamnesis		.709			
6	Exchange among students and trainees about spiritual needs			.864		
7	Exchange among students and trainees about spiritual accompaniment and guidance			.862		
8	Exchange among students about own spirituality	.363		.678		
21	Regularly approaches patients to discuss their spiritual needs		.346	.506		
11	Able to have open conversations about religious topics				.799	
10	Able to have open conversation about existential topics				.792	
22	Able to open spaces in which patients can discuss their spiritual concerns	.400			.500	
12	Day review on patient					.846
15	Thoughts and emotions towards patient					.836

* Note: Sampling suitability by KMO = 0.803, Bartlett-Test p<0,00, Principal component analysis with Varimax-Rotation (Kaiser-Normalization). Rotation is converged in 7 iterations. Only charges > 0.5 and secondary charges > 0.3 are shown in the pattern matrix.

Table 4. Results explorative factor analysis; factors, factor loading

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