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Psychometric Properties of Schwartz Center Compassionate Care Scale with Iranian Patients

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Abstract

Background: Despite patients' and caregivers' approval of the importance of compassionate care, without proper measurement, we cannot know the level of compassion or the effectiveness of interventions. Thus, the aim of this study was to assess the reliability and validity of the Persian version of the Schwartz for Compassionate Care scale.

Methods: The scale was translated using the back and forward technique. The construct validity was assessed using confirmatory factor analysis. Concurrent validity was examined by Pearson's correlations between this scale and the patient satisfaction with nursing care quality questionnaire. The reliability was assessed using test-retest and internal consistency methods.

Results: The results of the confirmatory factor analysis reported almost adequate values for all fit indices (χ^2/df = 2/85, RMSEA= 0/07, CFI= 0/88, GFI=0/92, AGFI=0/88 TLI=0/90) and concurrent validity was high. Cronbach's alpha was reported as 0.95 and the results of the test-retest in checking the time stability of the scale were reported as 0.78.

Conclusion: It can be concluded that Schwartz's Compassionate Care scale had almost acceptable validity and reliability for Iranian nurses' caring behavior. Therefore, the Persian version of this scale should be used with caution in Iran.

Keywords: Compassionate care, Nursing care, Psychometric evaluation

Introduction

Among the issues that are very important for patients and their families, are the type and quality of care and the behavior of the staff towards them (1). Therefore, healthcare institutions provide care based on moral and human values (2). One of the issues that have recently grown with an emphasis on moral and human values and have become a global issue is providing compassionate care (3). The term compassion is defined as the sensitivity shown to understand the pain and suffering of another person, along with the desire to help and promote that person's well-being and find solutions to their circumstances. This practice should be a task in the daily work of health care professionals (4). In fact, compassion, like empathy, is triggered when something unfortunate happens to another person, with the difference that compassion is triggered by more serious situations (5).

The evidence demonstrates that when care is based on compassionate behaviors, patients can easily express their symptoms and concerns, and this makes medical staff wholly examine the patient's condition and provide an accurate diagnosis. Also, providing compassionate care can improve the quality of care, increase patient satisfaction, and even reduce lawsuits from patients (6). Lack of compassion can lead to additional suffering for patients as well as more possibility of diagnostic and management errors (7). Also, if the care is done in a non-compassionate way, it causes a decrease in the care standards and has a negative impact on the quality of care (8), and makes the patients feel that they have been forgotten and are not valued so much. This process ultimately causes patients' dissatisfaction (9). That is why today's health institutions are trying to support approaches that increase compassionate care (10). Despite patients' and caregivers' approval of the importance of compassionate care, without proper measurement, we cannot know with certainty the level of compassion of caregivers or the effectiveness and ineffectiveness of interventions designed to strengthen the compassion of health care providers (11). In this regard, the Compassionate Care Scale was developed by the Schwartz Center for Compassionate Care in order to promote compassion and support special care providers in healthcare organizations (12). The center has developed criteria for evaluating compassionate care provided by professional caregivers. Initial criteria were reviewed by a 20-person task force composed of individuals with diverse perspectives and experiences, including cancer survivors, individuals with chronic pain or debilitating illnesses, family members, and interdisciplinary health care providers, and it has been prepared by people who are active in health policies and advocacy. Then, based on these collected materials, the Schwartz Center created a set of 16 items to evaluate compassionate care in hospitalized patients (13). After the first psychometric study of the tool, the best items were extracted, and finally, a 12-question scale was compiled, which is called the Schwartz Center Compassionate Care Scale (12). Considering that no study has been done in Iran regarding the localization of this scale, this study was conducted in line with the localization of the Schwartz Center Compassionate Care Scale in Iran.

Materials and Methods

Participants and procedures

The study participants were 129 adults aged ≥18 years and hospitalized in the general settings of the University of Medical sciences-affiliated Hospitals of Mashhad, Iran. They were recruited through convenience sampling in the two hospitals. The sample size was determined based on the suggestions of at least 5 to 10 participants in each scale item (14). Exclusion criteria were the inability to give informed consent and any cognitive impairment (evaluated by the Mini-Mental State Test) and incomplete responses to the scale questions. The method of data collection was self-reporting and face-to-face interviews (for patients who did not have sufficient literacy level to read and understand scale items), from January 22 to June 17, 2022. This study was approved by the Ethics Committee of Mashhad University of Medical Sciences (IR.MUMS.REC.1399.484). All the participants provided informed consent and were informed about confidentiality and the right to withdraw at each stage of the study.

Translation procedure

Translation procedures of the Schwartz Center Compassionate Care Scale were performed in accordance with formerly published literature (15,16).

For the scale, the back and forward translation technique was used to translate the Persian version back into English. Three bilingual native Iranians (two with background knowledge of nursing, and an English editor) translated the Care Scale from English into Persian, independently. They prepared their comments and corrections. The translated versions were compared by the first and second authors of this study and analyzed until there was an agreement regarding the initial translation. Then two professional English language translators back-translated the interim Persian version of the Scale into English (they were not aware of the original English version). The purpose of this phase was to check for disagreements between the content and meaning of the original version and the translated scale. Next, all the translators, the project manager, and one Scale Development specialist attended a meeting to achieve consensus regarding the cross-cultural face validity of the scale. Some modifications were made in this stage to adjust its cultural adaptability and solve any mismatch. The scale was pilot tested on 10 adults to understand how the adults interpreted the items. The adults were asked to read each item and select the items' response options and to give their comments about clarity and understandability of the scale's wordings. All the changes were made on a trial basis. The revised version was conducted on 135 adults hospitalized in two hospitals affiliated to Mashhad University of Medical Sciences. The patient satisfaction with nursing care Quality Questionnaire was applied for concurrent validity appraisal.

Measures

Schwartz center compassionate care scale: Compassionate care in this research is the score that patients gave to nurses' compassionate care behaviors. These behaviors were assessed by Schwartz Compassionate Care Scale. The Compassionate Care Scale was developed by the Schwartz Compassionate Care Center in order to promote compassion and support special care providers in healthcare organizations (8). The center has developed criteria for evaluating compassionate care provided by professional caregivers. Initial criteria were reviewed by a 20-person task force composed of individuals with diverse perspectives and experiences, including cancer survivors, individuals with chronic pain or debilitating illnesses, family members, interdisciplinary health care providers, and it has been prepared by people who are active in health policies and advocacy. Then, based on these collected materials, the Schwartz Center created a set of 16 items to evaluate compassionate care in hospitalized patients. This scale is a 12-item scale where each item is scored on a 10-point scale from 1 to 10 with response options from 1 (not at all successful) to 10 (very successful) (9). After the first psychometric study of the scale, the best items were extracted and finally a 12-question scale was compiled, which is called the Schwartz Center Compassionate Care Scale (8).

Patient Satisfaction with nursing care Quality Questionnaire

Patient Satisfaction with nursing care Quality Questionnaire was developed by Lascbinger in 2005 that is widely applied in adult populations worldwide. It has 23 items. All the items are rated on a 5-point Likert-type scale. Higher scores indicate greater satisfaction with nursing care. 21 items are about patients' satisfaction with nurses' performance and 2 items are about satisfaction with the entire hospital services. The Persian version of the questionnaire has been found to be highly valid and reliable for using in adults (10).

Data analysis

In order to assess the construct validity, Confirmatory Factor Analysis (CFA) was used. Several fit indices were utilized to evaluate the model fit: Chi-square goodness of fit statistics was less than5, root mean square error of approximation (RMSEA) was less than 0.08, and goodness of fit index (GFI), comparative fit index (CFI), adjusted goodness of fit index (AGFI), and Tucker–Lewis index (TLI) were greater than 0.9 (11). Based on this model, standardized factor loadings above 0.3 are considered moderate to strong factor loading (12). Concurrent validity was examined by computing Pearson's correlations between the Schwartz Center Compassionate Care Scale and Patient Satisfaction with nursing care Quality Questionnaire.

In order to assess the scale reliability, Cronbach's alpha

was used to assess internal consistency reliability (ICC). Stability of the scale over time was tested through completion of the scale by 26 participants in a 14-day interval. Values equal to or higher than 0.7 were considered satisfactory for both Cronbach's alpha and the test–retest correlation coefficients. Data analysis was carried out using SPSS/20 and AMOS/26 software.

Results

Demographic data

A total of 135 scales were returned. 6 scales were incompletely answered; thus those were excluded from the analysis. These missing answers may be due to some items being vague and confusing. For example, item #3 "Consider the effect of your illness on you, your family, and the people most important to you?" was the most common item left unanswered. The adults who participated in the study consisted of 73 (56.6%) men and 56 (43.3%) women. The mean age of the participants was 42.70±15.90 and the mean of length of hospitalization was 6.98±4.48 days (Table 1).

Table 1. Patients' demographic data

Demographics	Patients (129)
Age (years)	42.70±15.90
Length of hospitalization (days)	6.98±4.48
Gender	
Female	73 (56.6%)
Male	56 (43.3%)
Marital status	
Married	86 (66.66%)
Other	43 (33.33%)
Education	
High school diploma or less	95 (73.64%)
Greater than high school diploma	34 (26.35%)

Table 2. The confirmatory factor analysis results of the Persian version of the Schwartz center compassionate care scale

X^2/df	RMSEA	CFI	TLI	GFI	AGFI
2.85	0.07	0.88	0.90	0.92	0.88

Validity

The results of the CFA indicated that this scale had a good fit to the data (χ^2/df = 2.85, RMSEA= 0.07, CFI= 0.88, GFI=0.92, AGFI=0.88 TLI=0.90) (Table 2). Also, as shown in Figure 1, factor loadings between 0.38 and 0.53 were obtained.

Concurrent validity was examined by computing Pearson's correlations between the Schwartz compassionate care scale and patient satisfaction with nursing care quality questionnaire. Results reveal that

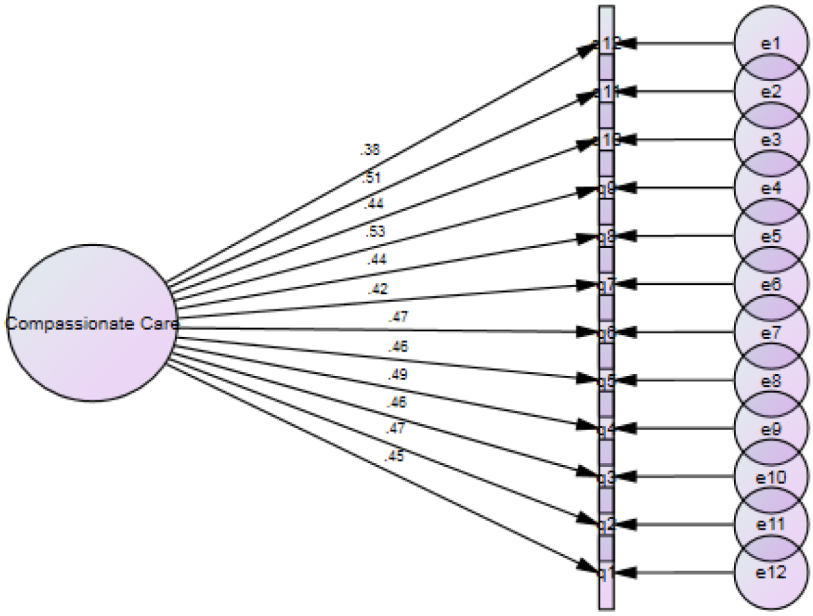

Figure 1. Path diagram for confirmatory factor analysis and its factor structure. X^2 = 154.38, df = 54, RMSEA = 0.07

the Schwartz compassionate care scale scores were significantly correlated with patient satisfaction with nursing care quality questionnaire scores (r=0.77, p<0.0001).

Reliability

Cronbach's alpha coefficient was calculated to check the internal consistency of the scale. The value of Cronbach's alpha coefficient for the whole questionnaire was 0.95, which is an acceptable and high value. Also, the results of the test-retest in checking the time stability of the scale were reported as 0.78.

Discussion

This study demonstrates the reliability and validity of the Persian version of the Schwartz compassionate care scale when applied to Iranian adult patients. The results of the confirmatory factor analysis showed the model's approval and its good fit. Also, based on results, Persian version of this scale had acceptable concurrent validity (0.77), reliability for the total scale (Cronbach's alpha value was 0.95), and reliability of the test–retest confirms the stability of the instrument in time (0.78).

In line with the findings of the present study, also a study conducted in the United States reported that this scale has excellent internal consistency (Cronbach's alpha coefficient 0.98) and retest reliability (0.90). Furthermore, the item-to-total correlation was excellent and ranged from 0.83 to 0.93. Convergent validity (construct) was confirmed with a moderate and positive correlation of 0.77 (p<0.0001) between this scale and the relational counseling and empathy scale, and all factor loadings were more than 0.4 (13). In another study conducted by Lown *et al* with the aim of comparing the perceptions of the people of the United States and Ireland regarding compassionate care, during their investigations, the Cronbach's alpha coefficient for the analysis of version 1 with all 16 items was 0.925. was, but when items 6, 11, 13 and 16, which had the lowest correlation, were removed from the scale, this value increased to 0.94 (17), which shows that the 12-item scale is at least as good as the 16-question scale. It is valid and consistent with the findings of the present study. Also, the study of Zeray which was conducted with the aim of studying the validity of Schwartz's Compassionate Care Scale and measuring the care performance among oncology patients in Addis Ababa, the construct validity of this scale based on indicators such as RMSEA=0.025, CFI=0.99, TLI = 0.99 and the internal consistency of the scale was 0.88 and showed that the scale has good validity among patients hospitalized in the oncology department (18).

In contrast to the present study, a 2021 study in Ethiopia demonstrated that the Schwartz Center Compassionate Care Scale is a two-factor construct (recognition of suffering and action to relieve suffering), which has a high overall scale reliability of 0.88 and subscale reliability of 0.84 for both subscales of recognizing suffering and taking action to relieve the factors of suffering (19). A possible reason for the observed difference could be due to the analysis method followed. In the present study, the scale was completed by the patients and then CFA was performed, and the results revealed that the items are related to one dimension, while in the study of Zeray *et al*, to check whether the scale is generally one-dimensional or not, all the items have been analyzed.

Considering that not all the reported fit statistics were appropriate, one potential reason is that the sample size of the study was not sufficient. The general recommendation is for 5 to 10 respondents for each parameter (20), but in some sources the minimum required volume is 300 people (21). Taking this into consideration, our 129 participants hardly meet the minimum conditions. Further research with a larger sample size may lead to additional findings. In addition, the structure of compassionate care may be influenced by the context's culture, values and norms. Studies on compassionate behavior show that nurses' behaviors can be different in different societies (22). These various behavioral patterns can have different cultural and social interpretations (23). Therefore, cultural and religious differences between the Muslim world and the West can justify these differences. Muslim nurses should behave according to their religious principles. For example, according to Iranian-Islamic culture, touching is only acceptable among people of the same gender or in Iranian nursing culture, a smile is an important expression of love and compassion. However, it is prohibited if

it goes beyond its limit and religious principles (24). In this regard, a qualitative study in Iran showed that from the perspective of patients, the concept of compassionate care is combined with other concepts such as empathy, sympathy, and routine care (25). Nurses, from a legal point of view, consider doctors to be responsible for delivering news about laboratory results to patients and their families (26). These examples indicate that the behavior of compassionate care and its understanding is strongly influenced by culture, and it is necessary to pay attention to this point in defining the concept of "compassionate care" and developing its measurement instrument. Also, since this scale was completed in hospitals during the Covid-19 pandemic, it is possible that the pandemic has interfered with the provision of compassionate care by nurses. This issue has disturbed patients' perception of compassionate care.

Conclusion

According to the results of the present research, it can be concluded that Schwartz's Compassionate Care scale had an almost acceptable validity and reliability for examining the Iranian nurses' caring behavior. Therefore, the Persian version of this scale should be used with caution in Iran. However, the present study, like other studies, had weaknesses and limitations, for instance, the current study was limited to one city and selected hospitals affiliated to Mashhad University of Medical Sciences. Therefore, it is suggested that in future studies, the psychometric properties of this scale be conducted in a more comprehensive national study, in Iran.

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Conflict of Interest

There is no conflict of interest.

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