Development and validity and reliability study of a Turkish Psychosocial Care Competence Self-Assessment Scale

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Abstract

Objectives: The aim of the present study was to develop a valid and reliable Turkish self-assessment tool to measure the psychosocial competency of nurses working in general clinics.

Methods: The sample used for this methodological study consisted of 300 nurses working in the general clinics of Sivas Cumhuriyet University Health Services Practice and Research Hospital. A personal information form and the Psychosocial Care Competence Self-Assessment Scale were used to collect the data. IBM SPSS Statistics for Windows, Version 22.0 software (IBM Corp., Armonk, NY, USA) was used to perform the statistical analysis of the data.

Results: The content-scope validity and construct validity were created for the draft scale using items selected from the related literature. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed for construct validity. The reliability of the scale was evaluated using item, internal consistency, and test-retest analysis. The EFA results indicated that 4 factors explained 70.44% of the total variance. CFA revealed that the data set was an acceptable model with excellent fit. The internal consistency coefficient of the entire scale was 0.93 and that of the subscales was found to be 0.80–0.93.

Conclusion: A Turkish Psychosocial Care Competence Self-Assessment Scale for nurses was created with 18 valid and reliable items with 4 subscales: symptom identification, use of knowledge, intervention, and diagnosis.

Keywords: Competence; nurse; psychosocial care; reliability and validity; scale development; self-assessment.

What is presently known on this subject?
- Psychosocial care is an integral part of healthcare. However, there is a lack of valid and reliable measurement tools in Turkish to evaluate the psychosocial care competence of nurses working in general clinics.

What does this article add to the existing knowledge?
- The development of a valid and reliable psychosocial care competence self-evaluation instrument for Turkish nurses represents a contribution to training, practice, and the literature, and will facilitate greater knowledge of the application of psychosocial care.

What are the implications for practice?
- The addition of a new scale to measure psychosocial care competence could contribute to strengthening evaluation of this important component of nursing and improve patient care.

Human beings are multifaceted and complex in nature, and are therefore often challenged by obstacles and conflicts during the course of their lifelong development. Disease can be one of these important conflicts.[1] Each individual has subjective reactions to the disruptions caused by the symptoms, signs, and concomitant problems of a disease diagnosis. Emotional reactions, such as fear, anger, sadness, and grief, as well as behavioral reactions and their effects, such as concealment, isolation, and refusal of treatment are common.[2,3] These responses can create additional challenges for the patient, family, and the healthcare team. Psychosocial reactions to disease may reduce the physical and emotional resistance of the patients, and add to difficulty adapting to disease and complying with treatment, which could affect the emergence, course and severity of disease. The prevalence of psychiatric problems in the general population is approximately 15%, however, the percentage can be as much as 40% to 50% among...
Patients. Many of these psychiatric problems develop secondarily to medical illness. This may result in a prolonged hospital stay, decreased quality of life, and increased mortality and morbidity rates. A psychosocial evaluation of patients and the early provision of appropriate care could be very beneficial.

Psychosocial care refers to the provision of the appropriate psychological, social, cultural, and spiritual care for each individual. Psychosocial care encompasses efforts to help people who are unable to cope with emotional changes caused by illness, existential crises that may affect general health, or psychiatric problems. Effective psychosocial care can improve the quality of life of patients by reducing their physical symptoms, alleviating psychological distress, and may eliminate the need for hospital admission.

Nurses encounter psychosocial crises and patient problems every day. They have an active role in managing both the physical health and possible psychosocial problems of patients. The importance of providing holistic care to patients is taught to nursing students during undergraduate education. However, due to the inadequacies and various other issues related to training and the policies and functioning of the healthcare system, the psychosocial aspect of care and the psychosocial needs of the patients can be neglected in favor of the physical aspects of care, which are considered to be more of a priority. Physical problems can be more easily recognized and handled; it is more difficult to evaluate the psychosocial aspects of care and to identify and resolve problems. While the importance of holistic nursing care is recognized, psychosocial aspects of care are often overlooked in practice. However, healthcare is a comprehensive entity; it comprises all biopsychosocial elements. It is important to determine the extent to which nurses perform psychosocial care in their daily practice and how they evaluate their competency to provide psychosocial care. A literature review indicated that the psychosocial caregiving practices and competency of nurses remain insufficient, and that students face difficulties and obstacles during practical training.

The recommended size of a sample in scale development is 5-10 individuals for each item. The draft scale developed in this study included 44 items; the number of nurses included in the research was more than 6 times the number of items.

Data Collection Format and Tools
The purpose of the study was explained to the participants, they completed a data collection form, and the research data were collected in face-to-face interviews.

Personal Information Form
The form consisted of 14 questions about the personal and professional characteristics.

Draft Psychosocial Care Competence Self-Assessment Scale
The initial measurement tool was prepared using a 5-point Likert-type for nurses to self-assess their psychosocial care competence: "It does not describe me at all" (1 point), "It describes me a little" (2 points), "I am undecided" (3 points), "It describes me well" (4 points), and "It describes me very well" (5 points). Items numbered 6, 12, 39, and 40 in the scale are reversely scored. The maximum score was 220 points and the minimum score was 44 points. A higher score indicated a greater estimation of psychosocial care competence.

Statistical Analysis
IBM SPSS Statistics for Windows, Version 22.0 software (IBM Corp., Armonk, NY, USA) was used to perform the statistical analysis of the data. A p level of >0.05 was considered significant. Descriptive statistics (frequency, percentage, mean, SD) were used to evaluate and report the data. Expert opinions on the content validity of the scale were performed using the Ken-
Development of the Psychosocial Care Competence Self-Assessment Scale

Initially, 86 items were identified as relevant to the psychosocial care competence of nurses based on a comprehensive literature review.²⁻¹⁶ Eleven experts were consulted to review the item pool of 86 items for content validity, and they provided an assessment regarding the suitability of the items regarding purpose, clarity, and importance. The expert opinions were evaluated using the Davis method. A content validity index (CVI) of >0.80 is considered to indicate sufficient content validity.¹⁷,¹⁸ Items with a CVI of <0.80 were excluded. The final version of the draft scale included 44 items. The factor structure of the scale was evaluated with CFA to examine the construct validity. The reliability of the scale was evaluated using the Cronbach Alpha coefficient.¹⁷,¹⁸

Results

Of the study participants, 76.0% were female and 24.0% were male. The age of 26.3% of the participants was 19–25 years, while 47.7% were 26–32 years of age, 15.0% were 33–39, 10.0% were 40–46, and 1.0% were aged ≥47 years. Among the group, 67.7% had an undergraduate degree, 53.7% were married, and 58.3% considered their financial status adequate. The age of 26.3% of the participants was 19–25 years, while 47.7% were 26–32 years of age, 15.0% were 33–39, 10.0% were 40–46, and 1.0% were aged ≥47 years. Among the group, 67.7% had an undergraduate degree, 53.7% were married, and 58.3% considered their financial status adequate (see Table 1).

The correlation reliability coefficient (Pearson product-moment correlation coefficient) of 39 items was .44–.74, indicating a positive and statistically significant correlation (p<.001). Five items were found to be statistically significant (p<.001), but the reliability coefficient was <.40, so these items were excluded from the next iteration of the scale (excluded items: numbers 6, 7, 12, 39, and 40). The total number of items was reduced to 39. The Cronbach alpha reliability coefficient of the scale increased after these items were removed (Table 2).

EFA of the remaining 39 items yielded a Kaiser-Meyer-Olkin (KMO) coefficient of 0.952. Since the KMO coefficient was >0.50, the data qualified for factor analysis. The Bartlett test of homogeneity of variance result (χ²=8.997405; degrees of freedom [df]=7.41; p=.000) was significant. In all, 6 subdimensions with a factor load varying 0.30–0.77 with eigenvalues >1 (1.23–8.64) were determined. Overlapping items with a factor load value of <0.5 and a difference of <0.10 in more than 1 factor were excluded from the scale.

Final EFA was conducted using the remaining 18 items; the KMO coefficient was >0.50. Therefore, the data were found to be eligible for CFA and the Bartlett test result (χ²=3.607845; df=1.53; p<0.001) was significant. It was also determined that the data were homogeneous and the variances were appropriate. The 18 scale items were categorized in 4 subdimensions with an eigenvalue of >1 (1.12–8.64). The variance explained by the factors was 6.25–48.02%, explaining 70.44% of the total variance of the four subdimensions. The factor loads of the scale items ranged .53–.82. The first subdimension identified was symptom identification (items 19, 20, 21, 22, 23), the second subdimension was use of knowledge (items 33, 34, 35, 36, 38), the third was intervention (items 41, 42, 43, 44), and the fourth subdimension was diagnosis (items 4, 5, 30, 31) (Table 3).

Confirmatory Factor Analysis

CFA was conducted to verify the consistency of the 4 subdimensions determined as a result of the final factor analysis of the Psychosocial Care Competence Self-Assessment Scale (Table 4).

According to the initial CFA results, the root mean square error of approximation (RMSEA), the goodness-of-fit index (GFI), and normed fit index (NFI) fit values were near the desired level. According to modification recommendations, the fit indexes were found to be sufficient as a result of the CFA results obtained after modification of the error variances of between

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Number (n)</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>228</td>
<td>76.0</td>
</tr>
<tr>
<td>Men</td>
<td>72</td>
<td>24.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19–25 years</td>
<td>79</td>
<td>26.3</td>
</tr>
<tr>
<td>26–32 years</td>
<td>143</td>
<td>47.7</td>
</tr>
<tr>
<td>33–39 years</td>
<td>45</td>
<td>15.0</td>
</tr>
<tr>
<td>40–46 years</td>
<td>30</td>
<td>10.0</td>
</tr>
<tr>
<td>≥47 years</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical vocational high school</td>
<td>38</td>
<td>12.7</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>18</td>
<td>6.0</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>203</td>
<td>67.7</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>41</td>
<td>13.7</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>161</td>
<td>53.7</td>
</tr>
<tr>
<td>Single</td>
<td>135</td>
<td>45.0</td>
</tr>
<tr>
<td>Widowed/divorced</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>Financial status</td>
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<td></td>
</tr>
<tr>
<td>Income &lt; expenses</td>
<td>92</td>
<td>30.7</td>
</tr>
<tr>
<td>Income = expenses</td>
<td>175</td>
<td>58.3</td>
</tr>
<tr>
<td>Income &gt; expenses</td>
<td>33</td>
<td>11.0</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2. The item-total score correlations of the draft Psychosocial Care Competence Self-Assessment Scale

<table>
<thead>
<tr>
<th>Statements (n=44)</th>
<th>Item-total score coefficient</th>
<th>Internal consistency coefficient when the item is excluded (Cronbach Alfa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know that being sick affects the psychosocial health as well as the physiological health of individuals.</td>
<td>.473</td>
<td>.941</td>
</tr>
<tr>
<td>2. I can obtain some information about mental state by observing a patient’s behavior.</td>
<td>.651</td>
<td>.940</td>
</tr>
<tr>
<td>3. I am competent in communicating effectively with patients.</td>
<td>.657</td>
<td>.940</td>
</tr>
<tr>
<td>4. I can identify the psychosocial problems of a patient.</td>
<td>.615</td>
<td>.940</td>
</tr>
<tr>
<td>5. I think I am competent at identifying the psychosocial needs of patients.</td>
<td>.622</td>
<td>.940</td>
</tr>
<tr>
<td>6. I believe that there is no need for psychosocial evaluation of patients with physical illnesses.</td>
<td>.237</td>
<td>.947</td>
</tr>
<tr>
<td>7. I think psychosocial care constitutes an important part of nursing practices.</td>
<td>-.332</td>
<td>.947</td>
</tr>
<tr>
<td>8. I can evaluate my patients’ worries about their illness.</td>
<td>.706</td>
<td>.939</td>
</tr>
<tr>
<td>9. I can talk to patients about how their condition has affected them.</td>
<td>.656</td>
<td>.940</td>
</tr>
<tr>
<td>10. I believe that I can communicate that I am interested in my patient by establishing an eye contact.</td>
<td>.650</td>
<td>.940</td>
</tr>
<tr>
<td>11. I ask patients their thoughts about being in the hospital.</td>
<td>.477</td>
<td>.941</td>
</tr>
<tr>
<td>12. I care only about the physiological symptoms of the patient related to the disease.</td>
<td>-.044</td>
<td>.946</td>
</tr>
<tr>
<td>13. I can identify my patient’s needs for social support.</td>
<td>.636</td>
<td>.940</td>
</tr>
<tr>
<td>14. I give the patient the opportunity to ask questions.</td>
<td>.679</td>
<td>.940</td>
</tr>
<tr>
<td>15. I can help my patients to express themselves better by asking open-ended questions.</td>
<td>.647</td>
<td>.940</td>
</tr>
<tr>
<td>16. I attentively listen to the patients I care for.</td>
<td>.743</td>
<td>.939</td>
</tr>
<tr>
<td>17. By trying to empathize with my patients, I can better understand their condition.</td>
<td>.718</td>
<td>.939</td>
</tr>
<tr>
<td>18. I can encourage my patients to participate actively in the management of their health.</td>
<td>.801</td>
<td>.939</td>
</tr>
<tr>
<td>19. I can identify symptoms of anxiety in a patient.</td>
<td>.697</td>
<td>.939</td>
</tr>
<tr>
<td>20. I can identify symptoms of depression in a patient.</td>
<td>.714</td>
<td>.939</td>
</tr>
<tr>
<td>21. I can identify symptoms of weakness in a patient.</td>
<td>.766</td>
<td>.939</td>
</tr>
<tr>
<td>22. I can identify symptoms of despair in a patient.</td>
<td>.746</td>
<td>.939</td>
</tr>
<tr>
<td>23. I can identify signs of anger/fury in a patient.</td>
<td>.757</td>
<td>.939</td>
</tr>
<tr>
<td>24. If a patient refuses treatment, I can discuss this with them.</td>
<td>.670</td>
<td>.939</td>
</tr>
<tr>
<td>25. I can recognize changes in a patient’s body image.</td>
<td>.726</td>
<td>.939</td>
</tr>
<tr>
<td>26. I can identify symptoms of low self-esteem in a patient.</td>
<td>.703</td>
<td>.939</td>
</tr>
<tr>
<td>27. I can identify factors that cause stressful responses in a patient.</td>
<td>.763</td>
<td>.939</td>
</tr>
<tr>
<td>28. I can recognize a patient’s methods of coping with stress.</td>
<td>.741</td>
<td>.939</td>
</tr>
<tr>
<td>29. I can identify a patient’s strengths (such as positive coping strategies, communication skills, seeking help).</td>
<td>.745</td>
<td>.939</td>
</tr>
<tr>
<td>30. I can identify a patient’s spiritual needs.</td>
<td>.619</td>
<td>.940</td>
</tr>
<tr>
<td>31. I can identify a patient’s sources of hope.</td>
<td>.640</td>
<td>.940</td>
</tr>
<tr>
<td>32. I can provide education according to the individual characteristics of a patient.</td>
<td>.741</td>
<td>.939</td>
</tr>
<tr>
<td>33. I know that it is important for patients to freely express their feelings, attitudes, and thoughts.</td>
<td>.740</td>
<td>.939</td>
</tr>
<tr>
<td>34. I involve patients and their family in the care provided.</td>
<td>.543</td>
<td>.940</td>
</tr>
<tr>
<td>35. I inform patients about changes caused by the disease.</td>
<td>.734</td>
<td>.939</td>
</tr>
<tr>
<td>36. I can teach patients how to use effective coping strategies.</td>
<td>.707</td>
<td>.939</td>
</tr>
<tr>
<td>37. I can teach patients useful techniques for coping with anxiety.</td>
<td>.706</td>
<td>.939</td>
</tr>
<tr>
<td>38. I can help patients set realistic goals that support a hopeful outlook.</td>
<td>.703</td>
<td>.939</td>
</tr>
<tr>
<td>39. I believe that psychosocial care is part of the role of a psychiatric nurse.</td>
<td>.174</td>
<td>.947</td>
</tr>
<tr>
<td>40. I limit my interviews because I am afraid that a patient will ask questions that I cannot answer.</td>
<td>.233</td>
<td>.947</td>
</tr>
<tr>
<td>41. I believe I am competent at providing psychosocial care to patients.</td>
<td>.592</td>
<td>.940</td>
</tr>
<tr>
<td>42. I can find a solution for any problem I have with a patient in the clinic.</td>
<td>.607</td>
<td>.940</td>
</tr>
<tr>
<td>43. I can help patients to view their problems from a different perspective.</td>
<td>.676</td>
<td>.939</td>
</tr>
<tr>
<td>44. I am competent in crisis intervention (amputation, loss of organ and function, trauma, etc.).</td>
<td>.503</td>
<td>.941</td>
</tr>
</tbody>
</table>
items 4 and 5, items 19 and 20, and items 19 and 23. The factor load of all of the items with their dimensions ranged 57–92 (Table 4).

Examination of the standardized coefficients of the scale in CFA, it was found that the load varied 0.77–0.92 in the first subdimension, 0.60–0.83 in the second, 0.57–0.86 in the third, and
Item-total score analyses were repeated with 18 items that were finalized via factor analysis, and item-subdimension score analyses were performed. It was determined that the reliability coefficient of all of the items in item-total score correlation analysis ranged 0.57–0.79, which indicated a positive and statistically significant correlation (p<.001). It was also observed that the reliability coefficient between the items of the 4 subdimensions of the scale and the total score of the subdimension ranged 0.87–0.92 on the first, 0.73–0.85 on the second, 0.78–0.86 on the third, and 0.78–0.81 on the fourth factor, indicating a positive and statistically significant correlation (p<.001) (Table 5).

Analysis of the correlation of the subdimension scores of the Psychosocial Care Self-Assessment Scale with the total scale scores revealed that the reliability coefficient ranged 0.79–0.85, indicating a positive and statistically significant correlation (p<.001) (Table 6).

Analysis conducted to assess the internal consistency of the Psychosocial Care Self-Assessment Scale and its subdimensions resulted in a Cronbach alpha reliability coefficient of α=.93 for the total scale. The internal consistency reliability coefficient of the subdimensions was α=.93 for the first factor, α=.85 for the second factor, α=.83 for the third factor, and α=.80 for the fourth factor (Table 7).

Test-retest reliability coefficient was evaluated using the Pearson product-moment correlation. The correlation coefficient between the 2 measurements was 0.96. When the significance test and the mean scores of the test and retest were compared, it was found that the difference between the mean score of the 2 dependent groups was not significantly different (p>.05) (Table 8).

**Discussion**

The validity and reliability testing of the Psychosocial Care Self-Assessment Scale developed in this study indicated that it is a valid and reliable measurement tool. A content validity study of an item pool of 86 items was carried out using the Davis technique. Two items with a construct-irrelevant variance
(CIV) of <0.80 and 12 items with a CIV of <0.81 were excluded from the scale. The consistency of the evaluation scores of the experts was evaluated using Kendall W analysis (Kendall W=0.88). The items in the pool were revised after consultation with experts, yielding a version with 44 items.

The KMO coefficient of the Psychosocial Care Competence Self-Assessment Scale was determined to be .952 and the Bartlett test result was $\chi^2=8.997405; p<0.001$, which was statistically significant. These values are important in terms of showing that the correlation matrix of the items in the scale was eligible for factor analysis. EFA is generally used to examine scale validity, while principal components analysis and varimax rotation are used to reveal factors. The eigenvalue coefficient is used to determine the factor structure. A higher eigenvalue explains a greater proportion of the variance. Generally, factors with an eigenvalue of ≥1 are considered important factors. It is also important that the load values on the factor in which the items are located are high. A load value of ≥0.60 is considered high,

<table>
<thead>
<tr>
<th>Scale items</th>
<th>Coefficient of item-total score correlations</th>
<th>Item-subdimension correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>First factor (Symptom identification)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S19-I can identify symptoms of anxiety in a patient.</td>
<td>.71 .0001</td>
<td>.87 .0001</td>
</tr>
<tr>
<td>S20-I can identify symptoms of depression in a patient.</td>
<td>.74 .0001</td>
<td>.90 .0001</td>
</tr>
<tr>
<td>S21-I can identify symptoms of weakness in a patient.</td>
<td>.79 .0001</td>
<td>.92 .0001</td>
</tr>
<tr>
<td>S23-I can identify signs of anger/fury in a patient.</td>
<td>.75 .0001</td>
<td>.87 .0001</td>
</tr>
<tr>
<td>S22-I can identify symptoms of despair in a patient.</td>
<td>.77 .0001</td>
<td>.89 .0001</td>
</tr>
<tr>
<td>Second factor (Use of knowledge)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S35-I inform the patient about changes caused by the disease.</td>
<td>.71 .0001</td>
<td>.85 .0001</td>
</tr>
<tr>
<td>S34-I involve patients and their family in the care provided.</td>
<td>.54 .0001</td>
<td>.73 .0001</td>
</tr>
<tr>
<td>S36-I can teach a patient how to use effective coping strategies.</td>
<td>.72 .0001</td>
<td>.83 .0001</td>
</tr>
<tr>
<td>S33-I know that it is important for patients to freely express their feelings, attitudes, and thoughts.</td>
<td>.70 .0001</td>
<td>.79 .0001</td>
</tr>
<tr>
<td>S38-I can help a patient set realistic goals that support a hopeful outlook.</td>
<td>.71 .0001</td>
<td>.77 .0001</td>
</tr>
<tr>
<td>Third factor (Intervention)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S42-I can find a solution for any problem I encounter with a patient in the clinic.</td>
<td>.67 .0001</td>
<td>.86 .0001</td>
</tr>
<tr>
<td>S43-I can help patients to view their problems from a different perspective.</td>
<td>.73 .0001</td>
<td>.84 .0001</td>
</tr>
<tr>
<td>S41-I believe I am competent at providing psychosocial care to patients.</td>
<td>.64 .0001</td>
<td>.82 .0001</td>
</tr>
<tr>
<td>S44-I am competent in crisis intervention (amputation, loss of organ and function, trauma, etc.).</td>
<td>.57 .0001</td>
<td>.78 .0001</td>
</tr>
<tr>
<td>Fourth factor (Diagnosis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4-I can identify the psychosocial problems of my patient.</td>
<td>.62 .0001</td>
<td>.78 .0001</td>
</tr>
<tr>
<td>S5-I think I am competent at identifying the psychosocial needs of patients.</td>
<td>.64 .0001</td>
<td>.77 .0001</td>
</tr>
<tr>
<td>S30-I can identify a patient’s spiritual needs.</td>
<td>.64 .0001</td>
<td>.81 .0001</td>
</tr>
<tr>
<td>S31-I can identify a patient’s sources of hope</td>
<td>.65 .0001</td>
<td>.80 .0001</td>
</tr>
</tbody>
</table>

Table 5. Item-total score correlations of the scale and sub-dimensions at the second stage

<table>
<thead>
<tr>
<th>Scale subdimensions</th>
<th>Subdimension-total scale correlation coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_p$</td>
</tr>
<tr>
<td>First factor</td>
<td>.84</td>
</tr>
<tr>
<td>Second factor</td>
<td>.85</td>
</tr>
<tr>
<td>Third factor</td>
<td>.79</td>
</tr>
<tr>
<td>Fourth factor</td>
<td>.80</td>
</tr>
</tbody>
</table>

Table 6. Correlations between subdimension scores of the Psychosocial Care Competence Self-Assessment Scale and the total scale score

<table>
<thead>
<tr>
<th>Scale and subdimensions</th>
<th>$\propto$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total scale</td>
<td>.93</td>
</tr>
<tr>
<td>Subdimensions</td>
<td></td>
</tr>
<tr>
<td>First factor</td>
<td>.93</td>
</tr>
<tr>
<td>Second factor</td>
<td>.85</td>
</tr>
<tr>
<td>Third factor</td>
<td>.83</td>
</tr>
<tr>
<td>Fourth factor</td>
<td>.80</td>
</tr>
</tbody>
</table>
whereas a load value of 0.30–0.59 can be defined as medium. This is taken into account in variable subtraction. In a multi-factor structure, if an item is included in ≥1 factor with a high load value with a difference of <0.10, this item is defined as an overlapping item and these items are excluded from the scale. In this study, the factor load value used was 0.50. The analysis revealed overlapping items with a factor load value of <0.5 and a difference of <0.10 in ≥1 factor. Therefore, only items with a factor load value of ≥0.5 were included in the analysis. Each item that was not suitable for analysis was excluded and the analysis was repeated. A total of 21 additional items were excluded from the scale.

EFA was applied to 18 statements categorized in 4 subdimensions with an eigenvalue ≥1 (1.12–8.64). The variance explained by the factors was 6.25–48.02%, and the 4 factors explained 70.44% of the total variance. The factor loading of the scale items ranged .53–.82. The 4 factors that emerged as an overlapping item and these items are excluded from the scale or between observed variables and the structure or between edge, intervention, and diagnosis.

CFA is a technique used to test theories about latent variables. This method of modeling is used to test the relationships between observed variables and the structure or between structures that are assumed to be measured through these variables. CFA models can also be performed on a theoretical basis and differ from EFA in this respect. A number of fit indices provide information about the degree and direction of the relationship between 2 variables. A coefficient of +1 indicates a positive and perfect relationship. For a scale to be considered reliable, the coefficient value must be ≥0.70. In this study, the scale was administered twice with an interval of 3 weeks between administrations. The Pearson product-moment correlation coefficient, the strongest correlation technique, is a useful calculation if the measured feature is a continuous variable and the scale has equal intervals or ratios. Correlation coefficients provide information about the degree and direction of the relationship between 2 variables. A coefficient of +1 indicates a positive and perfect relationship. For a scale to be considered reliable, the coefficient value must be ≥0.70.

In this study, there was a high correlation between the 2 applications. The alpha value was 0.96. When the significance test of the difference between the means of the 2 dependent groups and the mean scores obtained from the test and retest were compared, it was found that there was no significant difference (p>0.05). These results indicate that the scale is consistent and dependable over time.

**Conclusion**

We created a valid and reliable Psychosocial Care Competence Self-Assessment Scale for Turkish nurses consisting of 18 items and 4 subdimensions (symptom identification, use of knowledge, intervention and diagnosis) with a Cronbach alpha coefficient of 0.93. The validity of the scale could have been demonstrated in a comparison with a similar, valid and reliable measurement tool; however, there is currently no similar scale. This instrument can be used to evaluate and potentially improve this important element of nursing care, as well...
as to contribute to training, policy, and international research.

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**References**