

Korean Society of
Nursing Science

Contents lists available at ScienceDirect

Asian Nursing Research

journal homepage: www.asian-nursingresearch.com

Research Article

Turkish Version of the Student Nurse Stress Index: Validity and Reliability

Gamze Sarikoc, PhD, RN,^{1,*} Meral Bayram Demiralp, PhD, RN,² Emine Oksuz, PhD, RN,³
Berrin Pazar, PhD, RN⁴¹ Education Unit, Gulhane Education and Research Hospital, Ankara, Turkey² Department of Psychiatric Nursing, Ufuk University, School of Nursing, Ankara, Turkey³ Department of Psychiatric Nursing, University of Health Sciences, Gülhane School of Nursing, Ankara, Turkey⁴ Department of Health, The General Staff, Ankara, Turkey

ARTICLE INFO

Article history:

Received 4 October 2016

Received in revised form

16 March 2017

Accepted 23 May 2017

Keywords:

education
nursing
students

SUMMARY

Purpose: This study aimed to adapt the Student Nurse Stress Index (SNSI) for the Turkish nursing students and investigate its psychometric properties.**Methods:** Research was conducted with 152 volunteer female students who attended a university college in Ankara, Turkey. Test-retest reliability was investigated for the scale internal consistency (Cronbach α) and stability. Also, content validity and construct validity of the SNSI were assessed. In order to determine the construct validity of SNSI, Uygulamalı Çok Değişkenli İstatistiksel Yöntemler and confirmatory factor analysis was conducted.**Results:** The Turkish version of SNSI with 15 items comprised four factors (academic load, clinical concerns, personal problems, interface worries). The content validity index (CVI) score was .97. Factor loadings of Turkish version of SNSI varied between .532 and .868. The “personal problems” subscale explained 19.01% of the variance; “clinical concerns” explained 18.51%; “interface worries” explained 15.32%; “academic load” explained 14.14%. The total variance explained was 66.99%. CFA results (χ^2/SD , GFI, CFI, TLI, IFI, RMSEA and SRMR) were acceptable and in good agreement. The internal consistency coefficient of the SNSI was .86.**Conclusion:** Results showed that the SNSI had a satisfactory level of reliability and validity in nursing students in Turkey. Multicenter studies including nursing students from different nursing schools are recommended for the SNSI to be generalized.© 2017 Korean Society of Nursing Science, Published by Elsevier Korea LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Stress is described as a person's mental, and/or physical limits being challenged in new and different situations, leading to nonspecific responses to the pressure on the organic system [1]. Stress is a dynamic interaction between the individual and the environment [2]. Selye defined stress as “a response given by the organism to stimuli” in 1952 [3]. Many students experience stress at high levels at the beginning of university education due to various changes required by the new environment, and this has been investigated by many researchers [3–5]. Nursing is an applied science. An applied science approach reveals the relationship

between theory and application, and comes to life with implementation of the theory. Student nurses are faced not only with academic stress but concerns of possibly hurting the patients as a result of the interventions they perform during the clinical internship period [6]. Deary et al. [7] reported that student nurses experienced stress in four areas: academic, clinical, personal and financial. Pulido-Martos et al. [6] evaluated the stressors for student nurses in three areas as academic stressors (such as fear of education, test and exam failure), clinical stressors (such as fear of making a mistake, negative reactions to suffering or dying patients, interactions with other staff) and personal/social stressors (such as economic problems, imbalance between homework and school). Hirsch et al. [8] reported lack of professional training, practical knowledge, free time and entertainment as factors that caused stress in student nurses. Responsibilities of being a university student and the course load can make student nurses experience

* Correspondence to: Gamze Sarikoc, Gulhane Education and Research Hospital, Education Unit, 06010, Etlik, Ankara, Turkey.

E-mail address: gamzesarikoc@yahoo.com

intensive stress in some periods of time [8]. The content of the theoretical knowledge and the complexity of the methods regarding the education, study skills, the difficulty of homework and exams, evaluation methods, exam notes and maintaining or developing them, fear of failure, excessive workload, many daily activities and lack of time create stress for the students [1,6]. The students are especially known to experience stress at a high level during their first clinical experiences [9–11]. The students believe that they are responsible for the lives and health of other people. They therefore have fears of making mistakes, harming the patient, and facing negative reactions at the beginning of clinical practice [12]. The necessity of using new theoretical knowledge during clinical practice and compliance with the hospital environment leads to stress. Student nurses experience the most stress because of insufficient professional training and practical knowledge [13]. The student who feels uncomfortable and unprepared for professional practice experiences stress. Patient and patient relatives, the clinical instructor, healthcare professionals and clinical practices are also basic stress sources for students [14].

The stress that can occur due to the nature of nursing education is a psychological factor affecting the academic performance and welfare of the students [15]. In this regard, stress can lead to dissatisfaction with nursing education and leaving the profession in the long term. It is important to explore the stress conditions of the students and the causative factors, and help them develop stress management skills in order to improve their quality of life and prevent exhaustion [13]. Beck and Srivastava developed a stress inventory of 35 items evaluating the stress sources as reported by student nurses in 1991 [16]. The nurse students stress index (SNSI) of 22 items was developed by Jones and Johnston in 1999 due to certain structural problems of the previous scale [9].

Concepts such as tolerance, understanding, respect for other cultures, being helpful, not harming and compassion are primary values in Turks due to the Turkish tradition and character and the Islamic value system. The inability to use interactive education methods such as simulation in a widespread manner can result in the students starting their clinical internships without having the opportunity to develop clinical skills. The students can therefore be hesitant about what is expected from them, and what they should do; they may also experience anxiety about harming the patients with the interventions they perform. Scientific and technological advances increase the expectation from nursing students to adapt and provide qualified care to a large number of patients in a short period of time. This influences how nursing students cope with the academic, personal, clinical and environmental stresses they experience during their education and there is no measurement tool like the SNSI that evaluates this situation as a whole in Turkey. In this study, we aimed to adapt the SNSI for the Turkish nursing students and investigate its psychometric properties.

Method

Research design

This study was planned and applied as a methodological study. The research questions were the following: (a) Is the Turkish version of the SNSI a valid and reliable measurement tool? (b) Are the psychometric characteristics of the SNSI an appropriate tool for measuring the stress perceived by nursing students in Turkey?

Samples

The data of this study was collected with face-to-face interviews from the nursing students who consented to participate in the study. A total of 152 students who continued their education at the

university during the 2015–2016 educational year and consented to participate in the study formed the study group. The nursing department in the university enrolled 421 students. But we could only reach 152 students who would like to participate in the study and completed all the data. Also, the SNSI consists of 22 items and our sampling size was approximately 152 with a ratio of 1 to 7. All of the participants were students. All were single and resided in the province.

Instrument

The SNSI consisted of 22 items clustered into four factors: academic load, clinical concerns, personal problems and interface worries. All items used a Likert scale ranging from 1 (*not stressful*) to 5 (*extremely stressful*). The four factors and their items are listed below:

“Academic load” includes items number 1, 2, 3, 8, 14, 18, and 20, and the score range is between 7 and 35; “clinical concerns” includes items number 13, 14, 16, 17, 18, 19, and 20 and the score range is between 7 and 35; “personal problems” includes items number 9, 10, 11, and 12, and the score range is between 4 and 20; “interface worries” includes items number 4, 5, 6, 7, 15, 21, and 22, and the score range is between 7 and 35 [9].

Procedure

We first obtained permission from Martyn C. Jones to evaluate the psychometric suitability of the SNSI to the Turkish culture. The English form of the index was translated into Turkish by bilingual investigators and two translation experts. The translated versions thought to explain each item best were chosen. The created Turkish form was reviewed and the compliance of each item with the Turkish culture and society was discussed, followed by appropriate corrections for content validity. The Davis technique was taken into account when evaluating the translation [17]. A preliminary administration was then conducted in a group of seven university students to make sure that the translation was easy to understand for face validity. It took about 15–20 minutes for the participants to complete the questionnaire. The SNSI was administered twice to the 143 students in the study group with an interval of 2 weeks in order to evaluate the test-retest reliability.

Data analysis

Content validity index (CVI) of the scale was assessed with the Davis technique. Test-retest reliability was investigated for the scale internal consistency (Cronbach α) and stability. The Pearson correlation coefficient was used for test-retest reliability, but the mean scores of the measurements conducted at different times were compared with *t* test in dependent groups. The structural validity of the scale was investigated with exploratory factor analysis and principal components analysis (varimax rotation). The suitability of the data for factor analysis was investigated with the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's sphericity test. The structure of the dimensions according to the results of exploratory factor analysis was verified by confirmatory factor analysis (IBM SPSS Amos 21.0; IBM Corp, Armonk, NY, USA). Those with a factor loading value of .50 and over were selected. SPSS 23.0 and Amos 21.0 program (IBM Corp) was used for the analysis of the data.

Ethical considerations

The necessary permissions were obtained from the faculties of the students that formed the sample of this study and the Gulhane Military Medical Academy Ethics Committee (11th session, approval no. 372).

Download English Version:

<https://daneshyari.com/en/article/8567911>

Download Persian Version:

<https://daneshyari.com/article/8567911>

[Daneshyari.com](https://daneshyari.com)