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THE CROSS-CULTURAL ADAPTATION OF THE SCHUTTE SELF-REPORT EMOTIONAL INTELLIGENCE TEST (SSEIT) FOR USE AMONG NURSING STUDENTS IN A DEFENCE UNIVERSITY, SRI LANKA

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ABSTRACT

The ability to recognize, control, and evaluate emotions is defined as emotional intelligence (EI). EI is a vital part of ward management and patient care in nursing practice. When EI is assessed and instilled in nursing students regularly, it paves the way for a long-term career. Schutte Self-Report Emotional Intelligence Test (SSEIT) has been identified as a useful tool for assessing emotional intelligence in nursing students. The goal of this study was to translate and adapt the 33-item SSEIT to use in Sinhala. The developer granted permission to translate the SSEIT into Sinhala. The cross-cultural adaptation was completed in five stages: (I) initial translation, (II) translation synthesis, (III) back translation, (IV) Expert Committee Delphi review, and (V) pre-final version testing. The translated version's content and consensual validity were assessed using a two-round Delphi process with five experts. Items rated 0-3 range by 70% of the raters were removed or reworded. The process was repeated for the reworded items, and those with 70% or higher ratings in categories 4-6 and/or 7-9 were kept. Following that, the Content Validity Index (CVI) was evaluated using I-CVI, Universal Agreement (S-CVI/UA), and Average CVI (S-CVI/Ave). Finalized SSEIT was administered to 197 nursing undergraduates from Kotelawala Defence University in Sri Lanka. In the Sinhala version of the SSEIT, the maximum CVI of each individual item (I-CVI=1.0) and the maximum overall CVI (S-CVI/UA = 1.0; S-CVI/Ave = 1.0) were also displayed. Cronbach's alpha was 0.963 which indicates a very high internal consistency The Sinhalese version of the SSEIT is a robust and reliable tool that has been culturally adapted to test EI in nursing students.

KEYWORDS: *Emotional Intelligence, Schutte Self-Report Emotional Intelligence Test, nursing students, Sri Lanka*

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1. INTRODUCTION

Emotional intelligence (EI) is the ability to understand and reason with emotion, integrate emotion into intellect, identify and convey emotion, and control one's own and others' emotions (Salovey, Peter; Mayer, 2000). Goleman identifies four elements of EI: self-awareness, self-management, social awareness, and relationship management (Goleman et al., 2002). Self-awareness refers to a person's proclivity to be aware of his or her feelings, attitudes, and behaviour in response to specific circumstances (Benbassat and Baumal, 2005). Self-management is the capacity to direct one's thoughts, feelings, and behaviour in ways that are appropriate for achieving the intended objective (Ott, 1998). Social awareness means being able to precisely attention to the emotions of other individuals to considerably comprehend the scenario. Relationship management means being able to properly manage social interaction by controlling one's emotions, other people's emotions, and situations (Salovey, Peter; Mayer, 2000).

Nurses as highly involved healthcare workers are expected to possess high EI to provide patients with appropriate care (Drigas and Papoutsi, 2018). Even if some nurses are unaware of the various aspects of EI, they can unintentionally learn and use some of these skills through experience. These abilities must be organized and improved to be more successful and efficient. By enhancing one's decision-making, time management, stress tolerance, and communication abilities, one can increase the quality of care (Snowden et al., 2015). Existing research has demonstrated the significance of EI for the nursing profession, including the development of therapeutic nurse-patient interactions, the provision of high-quality care, and the efficient use of nurses' consultation responsibilities (Yildirim-Hamurcu and Terzioglu, 2021). Additionally, EI helps nurses manage the complexity of interpersonal ties while adjusting to environmental changes and stress overload, decreasing stress, and increasing work productivity (Garside and Nhemachena, 2013; Lewis et al., 2017).

Clinical ability, which includes clinical knowledge, attitude, and skills, is a requirement for all nurses (Garside and Nhemachena, 2013). The main goal of Clinical education is to improve nursing students' clinical competence and practical abilities (Kumara and Sudusinghe, 2021). In addition to improving patients' medical experiences, high clinical aptitude boosts nursing students' sense of professional identity and accomplishment (Yildirim-Hamurcu and Terzioglu, 2021). It has been demonstrated that emotional intelligence (EI) can predict nursing students' performance in the classroom and clinical settings (Choi et al., 2015; Sharon and Grinberg, 2018). To equip nursing students to become better nurses in the future, it is crucial to routinely evaluate their EI (Kumara and Sudusinghe, 2021).

The 33-item Schutte Self-Report Emotional Intelligence Test (SSEIT) is regarded as a reliable tool for measuring EI in nursing students. It was developed in 1998 by Dr Nicola Schutte and her colleagues and is based on the Salovey and Mayer emotional intelligence paradigm (1990) (Schutte et al., 1998). This test looked at four different aspects: emotion usage, self-relevant emotion management, emotion perception, and other emotion management. The responses were graded on a scale of 1 to 5 with 1 being strongly disagree, 2 being disagree, 3 being neither agree nor disagree, 4 being agree, and 5 being highly agree. Thirty items of the questionnaire are evaluated positively, while three of them (items 5, 28, and 33) are given a reverse score. Higher SSEIT scores indicate greater emotional intelligence (Schutte et al., 1998). The original SSEIT obtained internal consistency reliability of 0.90 (Schutte et al., 1998). Though this was a sound scale to measure EI, it had not been cross-culturally adapted to use with Sri Lankan nursing students. Hence, the primary goal of this study was to translate and culturally validate the Sinhala version of SSEIT.

2. METHODOLOGY

The translation process of the SSEIT to Sinhala

Permission to translate SSEIT was granted by the original authors then the proposal was submitted receiving ethical approval from the Ethics Review Committee, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka. The cross-cultural adaptation was completed in five stages: (I) initial translation, (II) translation synthesis, (III) back translation, (IV) Expert Committee Delphi review, and (V) pre-final version testing (Beaton et al., 2000).

In stage, I, two local professional translators who are native and bilingual experts translated the English SSEIT scale into Sinhala. First, the two translators worked independently on the forward translation of the original items, instructions, and responses. Both translators and the local coordinator discussed the translations and agreed on a reconciled version during the second stage. The language was made conversational and simple to understand for the target audience, and measures were taken to ensure that the translated scale is conceptually equivalent to the original scale. In stage III, a local professional translator who is both an English native speaker and a Sinhala expert translated the first Sinhala version of the scale back into English. The translator did not have access to the original version of the scale at this point.

Evaluating the translated tool's content and consensus validity

Using the Modified Delphi Technique, a panel of experts comprised of a consultant psychiatrist, two clinical psychologists, a senior lecturer in sociology, a senior lecturer in nursing, and a nursing officer (Grade I) evaluated the translated scale for content validity and consensual validity (Hecht, 1979; Jones and Hunter, 1995). On a scale of 0 (complete disagreement) to 9 (complete agreement), each item was rated for consensual validity based on whether its conceptual meaning was retained after translation (ii) if it was appropriate for use with nursing students (iii) if it was culturally relevant to Sri Lanka. The content validity of each item was graded on a scale of 0 (complete disagreement) to 9, with consideration given to (i) whether each item was a relevant indication of its scale and (ii) whether the scale's overall set of items was adequate for evaluating EI. Items with ratings of 70% or higher in the 4-6 or 7-9 categories were retained, while items with ratings of 70% or higher in the 0-3 category went through a second round of the Delphi process.

The panel of experts' consensus was used to assess the content validity of individual items (I-CVI) and the overall scale (S-CVI). The average CVI (S-CVI/Ave) and the universal agreement (UA) among experts are the two methods for calculating S-CVI (Polit and Beck, 2010). The proportions of items on a scale that received a relevant rating of 4-6 or 7-9 categories from all experts were used to calculate S-CVI/UA, and the S-CVI/Ave value was calculated using the average of the I-CVIs for all items on the scale.

Pre-testing the validated scale

Thirty nursing graduates from the Faculty of Allied Health Sciences at General Sir John Kotelawala Defence University participated in a pre-test to assess the scale's level of difficulty, the simplicity of its concepts, any discomfort during the response, and the appropriateness of its length.

Assessing the reliability of the cross-culturally adapted scale

To determine the validity of the cross-culturally adapted scale, a descriptive cross-sectional study was conducted among nursing undergraduates at the Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University in Sri Lanka. For an internal consistency reliability study, a sample size of five to ten times the number of items in the instrument should be used (Kyriazos, 2018). Therefore, a minimum sample size of 140 participants (28 items x 5) was required for the scale to be validated. The online version of the translated and cross-culturally

adapted SSEIT was distributed to all willing nursing undergraduates (n=197) at General Sir John Kotelawala Defence University in Sri Lanka. The Statistical Package for Social Sciences (SPSS) version 23.0 was used to explain the demographic traits of the participants using descriptive statistics. Cronbach's alpha was used to gauge the scale's internal consistency reliability. The minimum acceptable level of Cronbach's alpha internal coefficient of reliability is 0.7 (Furtado et al., 2022).

3. RESULTS

Content and consensual validity of cross-culturally adapted SSEIT

All the items for the Sinhala version of the SSEIT were kept because 70% or more of the ratings fell into groups 4-6 and 7-9 according to the Delphi procedure (summatively). To restore their proper cultural meaning, several words have been altered. Additionally, all the items underwent the Delphi procedure again in the second round, including re-ratings in categories 7-9. As a result, the cross-culturally adapted SSEIT showed the highest levels of content validity for each of the individual items (I-CVI=1.0) and the entire test (S-CVI/UA = 1.0; S-CVI/Ave = 1.0). The general agreement showed that the cross-culturally adjusted SSEIT is a reliable instrument for evaluating EI.

Table 1 Personal Characteristics

Characteristics	Status	Frequency (n)	Percentage (%)
Gender	**Female**	160	81.20
	Male	37	18.80
Nationality	**Sri Lankan**	197	100.0
Year of Study	**First-year**	86	43.70
	Second-year	41	20.80
	Third-year	38	19.30
	Fourth-year	32	16.20

Reliability of the cross-culturally adapted SSEIT

All the participants were Sri Lankan (100%, n=197) and the majority of them were females (81.20%, n=160). The sample included nursing undergraduates in their first (43.7%, n=86), second (20.8%, n= 41), third (19.3%, n=38) and fourth years (16.2%, n=32) (Table 1). Cronbach's alpha was 0.963, indicating that the validated scale had very high internal consistency.

4. DISCUSSION

Many studies have found that EI has a significant impact on the nurse-patient relationship and the job satisfaction of nurses (Codier, 2020; Senanayake et al., 2020). Furthermore, when healthcare professionals begin to express compassion, patient satisfaction and outcomes improve (Nightingale et al., 2018). Therefore, frequent assessment of EI is necessary among nursing students who are going to be future nurses (Kumara and Sudusinghe, 2021). This study aimed to translate and cross-culturally adapt SSEIT as a valid instrument to assess the EI of nursing students in Sri Lanka.

There are no strict rules and regulations for adapting a questionnaire for use in another cultural setting. However, everyone agrees that using a questionnaire in another linguistic context right after a translation is inappropriate (Beaton et al., 2000; Guillemin et al., 1993; Herdman et al., 1998; Reichenheim and Moraes, 2007; Wang et al., 2006). As a result, the cross-cultural adaptation of SSEIT has proceeded through five stages to achieve acceptable content and consensual validity (Beaton et al., 2000; Fink et al., 1984; Jones and Hunter, 1995) and excellent CVI values.

Internal consistency, stability, and equivalence are all part of reliability (Bannigan and Watson, 2009). Internal consistency, which specifies the extent to which each item in a test measures the same notion or construct, is frequently used to explain dependability testing (Tavakol and Dennick, 2011). Cronbach's alpha and composite reliability (CR) values should be greater than 0.70. Further, when Cronbach's alpha is greater than 0.9 it is exceptional (Lin et al., 2020). Cronbach's alpha for translated SSEIT' revealed

outstanding results (α= 0.963). In previous research, acceptable reliability levels (α = 0.87) on the SSEIT were reported (Birks et al., 2009). The use of a common validation process in cooperation with a diverse team and the complete sample response without attrition was the study's merits. The study's cross-sectional descriptive design, however, might have significant disadvantages.

5. CONCLUSION

The Sinhala version of the SSEIT has demonstrated strong content and consensual validity, making it a reliable tool for assessing EI in nursing students in Sri Lanka.

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Conflict of interest

The authors affirm that they do not have any conflicts of interest.

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