Psychometric testing of the Persian version of the Belongingness Scale – Clinical Placement Experience

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SUMMARY

Background: Belongingness has been identified both as a fundamental human need and as a prerequisite for nursing students' clinical learning. Belongingness has also been associated with students' academic achievement, retention, self-esteem, self-directed learning, and self-efficacy. The Belongingness Scale - Clinical Placement Experience is a valid and reliable measure of nursing students' belongingness scores; however, a Persian version of this scale is not currently available.
Aim: This study aimed to translate the Belongingness Scale – Clinical Placement Experience into Persian, to evaluate its psychometric properties, and to measure the belongingness experiences of Iranian nursing students.
Methods: Following translation and initial validity and reliability testing of the scale, 300 nursing students from three universities in Iran completed the survey. Further psychometric testing was undertaken followed by analysis of descriptive statistics.
Results: Based on the results of confirmatory factor analysis two items were removed from the scale. The mean score of Persian version of the Belongingness Scale – Clinical Placement Experience was 3.21 (0.57). The whole scale had a high internal consistency (Cronbach's alpha = 0.92). The alpha coefficients of the subscales of "self-esteem", "connectedness", and "efficacy" were 0.85, 0.86, and 0.80 respectively.
Conclusion: Similar to previous versions of the Belongingness Scale – Clinical Placement Experience, the Persian version demonstrated strong psychometric properties with strong validity and reliability, indicating its utility and appropriateness when measuring Iranian nursing students' belongingness experiences. Further testing with other cohorts would strengthen these results.

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Introduction

Few would debate the importance of clinical placement experiences to contemporary nursing education (Levett-Jones et al., 2007). Clinical placements provide experiential learning opportunities in authentic clinical environments (Kim and Jung, 2012; Croxon and Maginnis, 2009); allow for application of theory to practice (Sharif and Masoumi, 2005); and facilitate nursing students' professional socialization (McKenna et al., 2013; Levett-Jones et al., 2007). Although quality clinical placement experiences are pivotal to nursing students' success and their attainment of competence, poor clinical education experiences undermine their learning, confidence, self-esteem and commitment to a career in nursing (Henderson et al., 2006; Levett-Jones and Lathlean, 2009). One of the key factors that play a crucial role in determining quality clinical experiences is the extent to which students experience a sense of belonging during their placements (Courtney-Pratt et al., 2011). This paper profiles the quantitative results from a mixed methods study that explored the belongingness experiences of Iranian nursing students. Levett-Jones (2007) Belongingness Scale – Clinical

Placement Experience (BES–CPE) was translated into Persian, its psychometric properties evaluated, and the belongingness scores of Iranian nursing students measured.

Background

Discussions about the importance of creating responsive, supportive and nurturing clinical environments and the importance of belongingness to nursing students' professional growth are not new (Kim and Jung, 2012). Levett-Jones (2007) conducted an extensive mix-method study of belongingness and concluded that "belongingness" is a prerequisite for students' learning, professional self-concept and attainment of clinical competence. An outcome of Levett-Jones (2007) doctoral research was the following definition of belongingness:

A deeply personal and contextually mediated experience that evolves in response to the degree to which an individual feels (a) secure, accepted, included, valued and respected by a defined group, (b) connected with or integral to the group, and (c) that their professional and/or personal values are in harmony with those of the group.

Based on a wide body of empirical studies belongingness has been identified as key to effective clinical learning (Kim, 2010); academic achievement and retention (Metsälä et al., 2012; Levett-Jones and Lathlean, 2008; Sedgwick and Yonge, 2008); social identity formation (Nolan, 2011); mental health (McLaren et al., 2007); positive placement experiences (Kim and Park, 2011); self-esteem (Gailliot and Baumeister, 2007); resilience (Levett-Jones et al., 2009; Kim and Park, 2011); capacity for self-directed learning (Kim and Park, 2011; Kim, 2010); and self-efficacy (Kim and Park, 2011; Levett-Jones et al., 2009). Given these extensive outcomes it is evident that the measurement of nursing students' belongingness experiences is an important way of determining the effectiveness of clinical education programs and potentially of identifying the factors that impact upon these experiences (Levett-Jones et al., 2007).

A number of instruments have been developed to measure belongingness (for example Hagerty et al., 1992; Metsälä et al., 2012; Kim and Park, 2011). Most measure belongingness in relation to families, social groups, communities or work environments (Malone et al., 2012). Measuring nursing students' belongingness experiences requires a specific instrument and we selected Levett-Jones (2007) BES–CPE. This instrument has been used in a number of different countries including Korea, Finland, Australia, England and Japan (Honda et al., under review; Kim and Jung, 2012; Levett-Jones, 2007; McKenna et al., 2013; Metsälä et al., 2012) and has strong evidence of validity and reliability. The BES–CPE consists of 34 items and uses a 5-point Likert scale ranging from 1 (never true) to 5 (always true). Higher mean scores are indicative of higher levels of belongingness. Four of the items (10, 14, 22 and 26) are reverse scored to minimize response bias. The subscales of the BES–CPE include 'self-esteem' (the extent to which one feels they are held in esteem by one's nursing colleagues) (13 items), 'connectedness' (a sense of interpersonal connection with colleagues) (10 items), and 'efficacy' (efficacious behaviors undertaken to enhance one's experience of belongingness in the clinical environment) (8 items). The BES–CPE has a Cronbach's alpha of 0.92 and 0.90 for the self-esteem subscale, 0.82 for the connectedness subscale, and 0.80 for the self-efficacy subscale (Levett-Jones, 2007).

Given the importance of the concept of belongingness to clinical education, the cultural and linguistic differences between countries, and the lack of a valid and reliable Persian belongingness instrument, we considered it necessary to investigate whether Levett-Jones (2007) BES–CPE could be adapted for use with Iranian nursing students. The present study was therefore conducted to translate the scale, test its psychometric properties, and measure Iranian students' belongingness scores.

Research Design

The overall aim of this study was to develop a valid, reliable, and culturally appropriate belongingness instrument for use in Iran. Specifically we aimed to:

1. Translate the BES–CPE into Persian
2. Test the psychometric properties of the Persian version of the BES–CPE
3. Measure Iranian students' belongingness scores.

Prior to commencing the study ethical approval was sought and provided by the Ethics Committee of the Shahid Beheshti University of Medical Sciences.

Phase 1. Scale Translation

With permission of the original developer of the scale (Levett-Jones, 2007) the BES–CPE was translated into Persian (also called Farsi, the official language of Iran) based on Wild et al.'s (2005) approach. The scale was independently translated into Persian by two translators fluent in both Persian and English. The research team then discussed and compared each of the items in the two translated versions, identified and corrected contradictions and differences, and merged the two versions into one. The final translated version was back-translated by two translators fluent in both English and Persian, one of whom was a native English speaker. The back-translation was revised, and the original developer (Levett-Jones) was asked to clarify some aspects and confirm the degree of similarity between the original and the back-translated versions.

Phase 2. Testing the Psychometric Properties of the Persian Version of the BES–CPE

Content Validity

To determine the content validity index Polit et al. (2007) advise that an expert panel consisting of 8–12 people based on clearly defined criteria should be selected. In this study, a panel of nine experts (an instrument design expert, six nursing instructors, a psychologist, and a clinical psychologist) were asked to rate each statement in the BES–CPE using a four-point Likert scale in terms of 'relevance to the intended construct', 'clarity' and 'simplicity'. As belongingness is a psychological construct inclusion of a psychologist and a clinical psychologist as expert panelists was considered worthwhile. The content validity index of the scale was calculated as 0.93 for relevance, 0.93 for clarity and 0.94 for simplicity. Face validity of the scale was simultaneously evaluated by the expert panel.

In order to further enhance face validity, determine the clarity of language and meaningfulness of the scale six nursing students representative of the target population were asked to review the scale. The students' comments on each item were obtained and the necessary corrections made. The final version of the scale was then reviewed once more by the researchers to correct grammatical and typographical errors.

Study Sites and Participants

The study population consisted of third and fourth-year bachelor of nursing students from three groups of type-one, type-two, and type-three universities in Iran. Universities in Iran are ranked according to specific criteria developed by the Ministry of Health and Medical Education and based on levels of quality in terms of autonomy and leadership, potentiation, and knowledge production (student research for example). The three universities were first selected through non-random sampling, and then stratified random sampling was applied to select the students. Considering the sample size in each stratum, proportional allocation method was used to distribute the sample size among the strata. Inclusion of three universities was designed to increase the