Adaptation and validation of the clinical supervision self-assessment tool among registered nurses

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ARTICLE INFO

ABSTRACT

Background: Clinical supervision of pre-registration nursing students has become an integral role of the registered nurse. The Clinical Supervision Self-assessment Tool relating to knowledge (CSAT–Knowledge) and the individual's skills (CSAT-Skills) of clinical supervision and comprising of 30 items each originally is widely used for nurses in Australia. However, the psychometric properties of this tool have not been previously reported.
Objective: To adapt the Clinical Supervision Self-Assessment Tool for nurses and to investigate the psychometric properties of the modified tool to measure registered nurses' knowledge and skills regarding supervising pre-registration nursing students.
Design: Instrument adaptation and psychometric testing.
Participants/Settings: A convenience sample of 229 registered nurses in a tertiary teaching hospital in Australia.
Method: A two-phase prospective study was conducted. Phase 1 involved the modification of the Clinical supervision Self-Assessment Tool, content validity and pilot testing of the modified version. Phase 2 included the psychometric testing of the modified Clinical Supervision Self-Assessment Tool (mCSAT–Knowledge; mCSAT-Skills).
Results: The mCSAT–Knowledge and mCSAT-Skills comprised of 30 items each. The content validity of the mCSAT was considered satisfactory based on the feedback from the expert panel. Results of the exploratory factor analysis supported a three-factor structure identified as: evaluating clinical learning; facilitating clinical learning and problem solving. The internal consistency was high with a Cronbach's alpha values > 0.90.

The construct validity was supported as nurses who had undertaken clinical supervision training demonstrated significantly higher clinical supervision knowledge and skills scores than those had no training.
Conclusions: The findings provide empirical support for the modified Clinical Supervision Self-Assessment Tool as a valid measure of registered nurses' knowledge and skills regarding the clinical supervision of pre-registration nursing students. The tool requires further psychometric testing in different samples of nurses to enable validation in other settings.

1. Introduction

Clinical placement also termed as workplace experience is an essential component for pre-registration nursing students in their program of study (Birks et al., 2017; Brynildsen et al., 2014; Levett-Jones et al., 2015). These clinical placements generally occur within the acute hospital setting (Taylor et al., 2017) although other new clinical placement opportunities for nursing students in non-acute settings have been explored (Patterson et al., 2016). Effective supervision during clinical placements is essential to ensure that pre-registration nursing students can provide safe and competent care when they enter the workforce.

Clinical supervisors take a leading role in supervising and assessing students during the clinical placement, however a significant part of the role of teaching and supporting nursing students falls on the nurses who work with them at the bedside (Omansky, 2010). It is widely assumed

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that nurses working at the bedside have the requisite knowledge and skills for effective clinical supervision (Chuan and Barnett, 2012). Nonetheless, several challenges and barriers to effective clinical supervision by these nurses have been reported in the literature. These include role ambiguity due to a lack of understanding of the requirements for supervising nursing students in practice (Croxon and Maginnis, 2009); managing competing demands in busy clinical settings (O'Brien et al., 2014) and inadequate preparation for clinical supervision (Mather et al., 2015).

Internationally, pre-registration nursing are required to complete a stipulated number of hours of clinical placements under appropriate supervision. However the number of hours varies between countries. For European countries, a direction by the European Parliament (2013) requires that clinical practice to be at least 50% of the total duration of the undergraduate nursing in order to get initial registration as a nurse. In Australia, nursing students must complete at least 800 h of clinical placements under supervision to be eligible to register to practice as registered nurses (Australian Nursing and Midwifery Accreditation Council, 2012). The Australian Nursing and Midwifery Accreditation Council (ANMAC), which is the regulatory body for nursing and midwives stipulates that clinical supervisors for pre-registration nursing students should be a registered nurse with a post graduate qualification (Australian Nursing and Midwifery Accreditation Council, 2012). However, in clinical practice a substantial number of the nurses who work at the bedside and supervise pre-registration nursing students do not meet this requirement (Health Workforce Australia (HWA), 2011; Mather et al., 2015).

Efforts to establish nurses' knowledge and skills required for clinical supervision have led to the adoption of the Clinical Supervision Self-assessment Tool (CSAT). The CSAT was originally developed for allied health professionals, however it has been adapted and is widely used for nurses in Australia. The CSAT is based on the core clinical supervision competencies outlined in the national clinical supervision competency resource developed by Health Workforce Australia (2014). It consists of two components of 30 items each relating to knowledge of clinical supervision (CSAT–knowledge) and the individual's skills (CSAT-skills) to perform the tasks of clinical supervision. Each component comprises of 30 items are categorised into six domains namely: 'prepare and plan' (three items), 'facilitate learning' (12 items), 'problem solve' (four items), 'communication' (four items), 'safety and quality in clinical supervision' (three items), and 'organisation' (four items). There is however no evidence in the literature of how the CSAT was developed and the six domain identified. Examining the structure and construct validity of instruments is considered critical particularly when instruments are modified, adapted or used in a different population from which it was originally developed for (Brown, 2014). In addition, the validity and reliability of the instrument has not been previously reported. The use of measurement instruments that have been not been psychometrically tested for reliability, validity limits the translation of findings into practice and policy (Lapkin and Stephenson, 2017). Determining the validity of the CSAT for nurses would allow the adaptation and use of this instrument for assessing nurses' knowledge and skills regarding clinical supervision of pre-registration nursing students. Therefore, the aim of this study was to adapt and validate the CSAT when used to measure registered nurses' knowledge and skills regarding supervising pre-registration nursing students.

2. Methods

2.1. Overview of Study Design

The study was conducted in two phases. In the first phase, the two components of the CSAT (CSAT–knowledge and CSAT-skills) were modified for use with Registered Nurses (RNs). Content validity was then established by a panel of experts and the modified version called the mCSAT (mCSAT–knowledge and mCSAT-skills) was pilot tested. For the second phase, the underlying structure of the mCSAT was explored and validated using data from a convenience sample of RNs.

2.1.1. Phase I: Instrument Modification, Content Validity and Pilot Testing

The original CSAT had forced binary responses options (Yes/No) and these have been shown to be less reliable as they decrease validity and affect the component structure of the measurement instruments. Evidence from studies that have investigated scale formats indicate that a wider range of respondent options increase validity and discriminating power as they accurately capture respondent opinions (Hancock and Klockars, 1991). Conversely, fewer number of response options may increase central tendency error and influence the level of response bias. Hence modifications were made to include wider range of response options for the mCSAT.

Content validity refers to the comprehensiveness and extent to which items included in a measurement instrument represents all the facets of a given theoretical construct (Zamanzadeh et al., 2015). Consultation with a panel of experts was undertaken to assess the content validity of the mCSAT (Crookes and Davies, 1998; DePoy and Gitlin, 2011). The members of the panel of experts included four nurse educators with extensive experience in supervising nursing students during clinical placements and two academics with expertise in nursing education and questionnaire development. The members were asked to indicate whether each item was relevant to the knowledge and skills relating to clinical supervision among nurses and to make relevant modifications were required. The mCSAT was then pilot tested with a sample of 20 nurses at the local hospital in February 2016.

2.1.2. Phase II: Validation of the mCSAT (mCSAT–Knowledge and mCSAT-Skills)

2.1.2.1. Design. A prospective cross sectional survey design with a convenience sample of RNs was used to collect data for this phase of the study.

2.1.2.2. Settings and Participants. The study setting was a large tertiary principal referral hospital in Sydney, Australia. The hospital provides a range of general medical, surgical and sub-specialty services and employs 560 fulltime equivalents RNs. The hospital is affiliated with two universities and provides supervised clinical placements for health students including pre-registration nursing students. Only RNs whose primary role was direct bedside patient care, who worked on a permanent basis and worked with nursing students during clinical placement, were eligible to participate in the study. Nurse Unit Managers (NUM), Clinical Nurse Consultants, Nurse Practitioners, Nurse Educators, Clinical Nurse Educators, Casual or Agency RNs, Enrolled nurses, Assistants in nursing and University facilitators were excluded from the study.

2.1.2.3. Data Collection. Nurses were informed of the study by the NUM and were provided with an information sheet outlining the purpose of the study. They were also informed of their right to decline the invitation and were assured that all information provided would be kept confidential. Data were collected using a questionnaire comprising of participants demographic (age, gender, employment status and highest level of education) and mCSAT (mCSAT–knowledge and mCSAT-skills). The questionnaires were distributed to the RNs during the daily ward in-service and they were asked to place the completed questionnaires in a secure box. The questionnaires from the box were retrieved daily and handed to the principal researcher. To increase the response rate, nurses were reminded about the study at clinical handover during the data collection period.

2.1.2.4. Ethical Considerations. Approval to undertake the project was obtained from the Health District Human Ethics Committee.