



RESEARCH ARTICLE

Accreditation of nursing clinical services: Development of an appraisal tool

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Abstract

Aim: This study aimed to determine comprehensive and applicable indicators for assessing the quality of nursing clinical services.

Design: Methodological research.

Methods: The checklist was designed in three phases (conceptualization, item generation and item reduction). In the first phase, a qualitative study using conventional content analysis was performed to clarify the concept of accreditation of clinical nursing services. In the second phase, using the views of experts was obtained in phase 1 and then by a review of the literature, related items were extracted, and item pool was formed. In the last phase, validity and reliability of the checklist were examined.

Result: Based on three phases (Conceptualization, Item Generation and Item Reduction), the accreditation indicators of clinical nursing services were extracted in three dimensions including structure, process and outcome at two levels of organizational (including structural and outcome indicators) and individual performance appraisal (process indicators) in 19 main categories.

KEYWORDS

accreditation, clinical governance, nursing care, patient safety, quality assurance, quality care

1 | INTRODUCTION

Quality improvement plays an important role in health system policies in all countries and force governments to improve health services quality (Mensah Abrampah, 2018; Moghri et al., 2013). Standards of professional nursing practice are a valid expression of tasks that are expected of all nurses, regardless of their roles and specialty (Association, 2010; Potter, Perry, Stockert, & Hall, 2016). Standards-compliant practice can improve the quality of nursing care (Fisher, 2017). Hence, to reduce the risk of harm to patients, having a level of clinical competency that complies with realistic and practical standards of care is essential (Zarowitz,

Resnick, & Ouslander, 2018). Factually, clinical practice involves the questions who, what, when, where and how. Answering these questions ensures the quality of care in standards-based practice (Masters, 2018). Due to the dynamic nature of nursing care, the standards of care are constantly changing and being updated. These standards can be used as a tool for performance evaluation (Association, 2010; Zarowitz et al., 2018).

2 | BACKGROUND

There are different methods for performance evaluation (Jaggi et al., 2018; Mohamed & Gabr, 2013; Shaout & Yousif, 2014).

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Accreditation is a common strategy for improving healthcare standards (Greenfield & Pawsey, 2018) and has attracted government, healthcare organization, medical association, manager, insurance company and other stakeholder attention (Chuang & Howley, 2017; Scrivens, 1996). Accreditation is the process of assessment a healthcare organization using certain and explicit indicators (Mosadeghrad, Akbari-Sari, & Yousefinezhadi, 2017). Accreditation is one of the management tools, useful for evaluation of the quality of care, which indicates the specific knowledge and experience beyond the expected minimum standards held by a professional person (McSherry, Pearce, Grimwood, & Mcsherry, 2012; McSherry, Msherry, & Watson, 2012; Stichler, 2010). Joint Commission on Accreditation of Healthcare Organizations (JCAHO) established the Joint Commission International (JCI) to respond to the global demand growth for standardized assessment in healthcare organizations (Yousefian, Harat, Fathi, & Ravand, 2013). The JCI investigated 500 international healthcare organizations in 2013. In this case, there are many studies evaluating the impact of external accreditation systems on hospital performance and patient outcomes (Alkhenizan & Shaw, 2011; Pomey et al., 2010).

The centrality of accreditation emphasizes learning, accountability, integrity, value and continuous improvement through reflection and analysis (Jackson & Halstead, 2016). Accreditation can improve the informed decision-making, improved patient centeredness, logistics and managerial processes, patient/staff safety and satisfaction, reduce costs, improve balance and systematic integrity and promoting professional growth and authority, which in turn helps reduce nurse turnover and enhance the quality of patient care, these are well documented (Beason, 2005; Lester, 2000; Saadati et al., 2018; Teng et al., 2012; Vanoli et al., 2012).

Teng et al. (2012), for example, found that the level of nurses' accreditation in nursing accreditation system which evaluates the capabilities of nursing professionals in Taiwan correlated with patient safety indicators (Teng et al., 2012). Alkhenizan & Shaw's study (2011) indicated that the hospital accreditation programmes improved clinical outcomes and quality of health care (Alkhenizan & Shaw, 2011).

A review of the literature in the field of accreditation and quality assurance in nursing services shows some confusion in the use of quality management models such as TQM, EFQM and clinical governance and also many problems raised by nursing services (Mcsherry, Pearce, et al., 2012). The lack of an effective evaluation and accreditation system for the hospital, given its high importance, can also endanger public health in addition to increasing medical costs (Nantsupawat et al., 2011). Some studies have shown that accreditation is a time-consuming method, creating administrative bureaucracy, increasing workload and creating stress for employees (Mahmoodian et al., 2016). On the other hand, results show that lowering quality standards of care, using inadequate standards for evaluating organizations and inadequate scoring methods are other accreditation challenges (Greenfield, Pawsey, Hinchcliff, Moldovan, & Braithwaite, 2012; Salehi & Payravi, 2017).

There are lots of quality assurance models in nursing; some of them are applicable in hospital context in Iran. However, no nursing model and/or framework has been introduced to guarantee the quality of nursing services in Iran; we suggest that accreditation could realize it. The first step to operationalize the accreditation is to identify specified standards or indicators of the domain with considering that application of care standards is entirely dependent on the context. These criteria or indicators were developed through clinical practice methods, guidelines, treatment protocols or statements about the expected outcomes of nursing care. In this study, nursing services include all activities performed by professional nurses in clinical settings to provide health, comfort and patient safety. These activities are defined and classified by nursing experts and can be evaluated by identifying the components and performance indicators and can include nursing process indicators that are the basis for effective nursing practice in the clinical wards. Therefore, the performance in accordance with the standards ensures quality assurance in nursing care; indeed, the outcome of extensive quality assurance activities such as accreditation is improved practice and service. This study aimed to determine and validate the indicators for accrediting nursing clinical services. The results of this study are presented to nursing managers and policy-makers in Iran to be used for the implementation of nursing accreditation as an important part of hospital accreditation programme.

3 | METHODS

This study which is part of a PhD dissertation reports a methodological research which conducted to design and validates a checklist for nursing services accreditation. This study was approved by the Ethics Committee of TUMS (92/S/130/1422). The checklist was designed in three phases (Figure 1). Consolidated criteria for reporting qualitative studies (COREQ).

A 32-item checklist was used for reporting the study (see Appendix S1).

3.1 | Phase I: Conceptualization

A qualitative study using conventional content analysis was performed to clarify the concept of accreditation of clinical nursing services. The advantage of the conventional approach is that data are acquired directly from the participants, without imposing predetermined categories or pre-existing theoretical views. Sampling strategies should be selected in a way that provide rich information with maximum variation and conforms to the methodological approach used (Hsieh & Shannon, 2005; Moser & Korstjens, 2018). At this phase of the study, 10 people who were experts in the field of nursing and accreditation participated, including 2 experts of Accreditation Office of the Ministry of Health and Medical Education who were the National Accreditation designers, 3 matrons, one accreditation supervisor, an accreditation expert who was a health deputy chancellors and a lecturer of

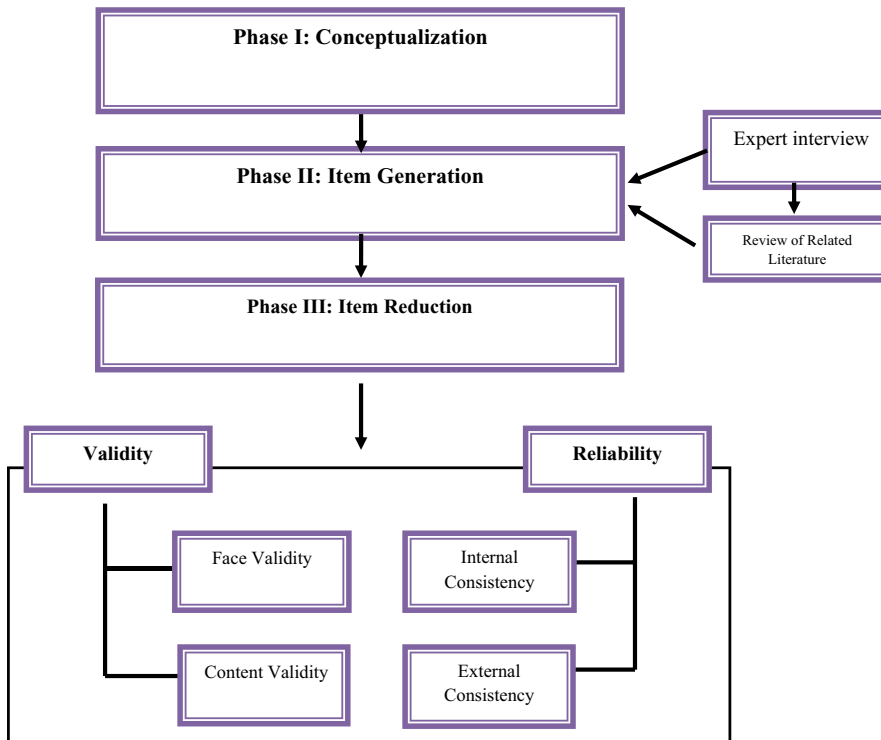


FIGURE 1 Development of Nursing Accreditation appraisal tool

hospital accreditation who was in charge of quality improvement and 2 experienced nurses.

3.2 | Data collection

In this study, data were collected through semi-structured interviews conducted by the first author which is the accreditation auditor of Ministry of Health. Interview questions were open-ended and developed by research team in which all of them have expertise in both accreditation and nursing field. Two main questions were as follows: "What is your definition of accreditation in the field of clinical nursing services?" and "What indicators should be considered if you want to accredit the clinical nursing services?". To understand the depth of experience of the participants and also for clarifying responses, reflective and explorative questions were used, such as: Why? How? Could you explain more?

Participants were interviewed separately in their workplace. Participants were given a participation information sheet indicating that any acquired information will be confidential and that they have the right to withdraw from the study at any time. At the beginning of each session, the objectives of the study were explained to participants, and after obtaining their written consent, the interviews were recorded and transcribed verbatim as soon as possible. At the end of the interview, participants were given the phone number of the researchers to contact if they wanted to add something more. A total of 18 interviews were conducted at this stage and the mean duration of the interviews was 43.8 min. Interviews continued until data saturation, so no new codes were found in the last 3 interviews.

3.3 | Data analysis

To analyse the data, a qualitative content analysis was used. Content analysis is a systematic and objective tool that describes and explains the phenomena. This method creates a valid interpretation from data with the aim of creating knowledge, new insights and presenting facts, the consistent and extensive explanation of phenomena analyses that leads to the creation of "concepts" and "categories." Qualitative content analysis is an autonomous method and can be used at varying levels of abstraction and interpretation (Graneheim, Lindgren, & Lundman, 2017). For subjective interpretation, the qualitative content analysis was used, through a systematic process, codes, and themes emerged. This method of analysis of textual data is beyond the visual content extraction and revealed themes and hidden patterns within the context of the data (Speziale, Streubert, & Carpenter, 2011).

The objective of this approach is data reduction and data structuring, and theory development is facilitated. Because of the aim of the study, conventional content analysis Graneheim and Lundman method was used. Graneheim and Lundman (2017) suggest the following steps for content analysis of qualitative data: 1. transcript of an interview immediately after the interview 2. Read the text for a general understanding of its contents 3. Determine the meaning of units and initial code 4. Classify similar codes in more comprehensive categories 5. Determine the themes from main categories. All of these steps were conducted by participation of all the authors of the study. Interviews were listened to carefully several times, and transcripts were readout several times to obtain a deep understanding. The analysis was performed using open code version 4.2 software. The interview plaintexts were

divided into the smallest meaning units, then summarized, and converted to codes in the next stage. According to similarities and differences, the various codes were categorized. Finally, a definition of the concept of accreditation of clinical nursing services in the context of Iran was proposed.

3.4 | Phase II: Item generation

Based on the extracted definition and dimensions of nursing clinical services accreditation from the first phase, the main constructs were extracted, and appropriate checklist items were developed. In this part, the views of experts were obtained through interview, and then by a review of the literature, related items were extracted, and item pool was formed.

For literature review, accurate search in the Persian and English databases, PubMed, Scopus, Science Direct, Google Scholar CINHAL, ProQuest, SID, Magiran, Iran medex, using the keywords, "Clinical services," "Nursing," "Professional accreditation," "Quality of care" and "Nursing Metric" was done without time limitation. In the preliminary search, a total of 67 literatures were found in relation to accreditation and quality indicators of nursing care. After a preliminary study, based on criteria such as addressing the issue of nursing quality assurance indicators, professional accreditation and evaluation of care provided by nurses, access to full text of articles was reduced to 24 articles. Literature and texts were studied comprehensively and deeply, and data related to quality assurance and evaluation of clinical nursing services were surveyed.

3.5 | Phase III: Item reduction

3.5.1 | Face and content validity

To assess the qualitative face validity of the checklist to determine the necessary time for its completion and obtaining comments, checklists were given to 15 clinical nurses' accreditation auditors. Checklist was examined in terms of difficulty of understanding words and phrases, relevant cases, the likelihood of confusion and inadequate understanding of the meaning of the phrases or words, substituted words.

In addition, impact score as a quantitative method was used to assess the face validity. First, for each of the 123 items on the checklist, 5-point Likert scale was considered: very important (score 5), important (score 4), of average importance (score 3), slightly important (score 2) and no matter (score 1). The 15 nurses and faculty members were asked to complete the checklist. Then, using impact score face validity was calculated: $\text{Impact Score} = \text{Frequency (\%)} \times \text{Importance}$ (Fadavi-Ghaffari, Azad, Shariatzadeh, Taghizadeh, & Aminzadeh, 2017; Hosseini, Ghorbani, & Ebn Ahmady, 2015). The frequency (%) means those who marked 4 or 5. Score of more than 1.5 is considered as suitable.

To determine the qualitative content validity of checklist, interview and discussion with 10 faculty members who were accreditation experts were done. They were asked to read the checklist carefully and then give their views and provide comments. They also emphasized use of accurate grammar, appropriate words, item importance, appropriate place and time of tool completion.

3.6 | Reliability

To determine the reliability of the final version of the checklist, external consistency (test-retest) and internal consistency (Cronbach's alpha) were used. External consistency: for this purpose, using convenience sampling 30 clinical nurses were selected, within 2 weeks they completed checklist twice. For all of the items, the intra-class correlation coefficient was calculated. Internal consistency: Cronbach's alpha was used to calculate internal consistency.

4 | RESULT

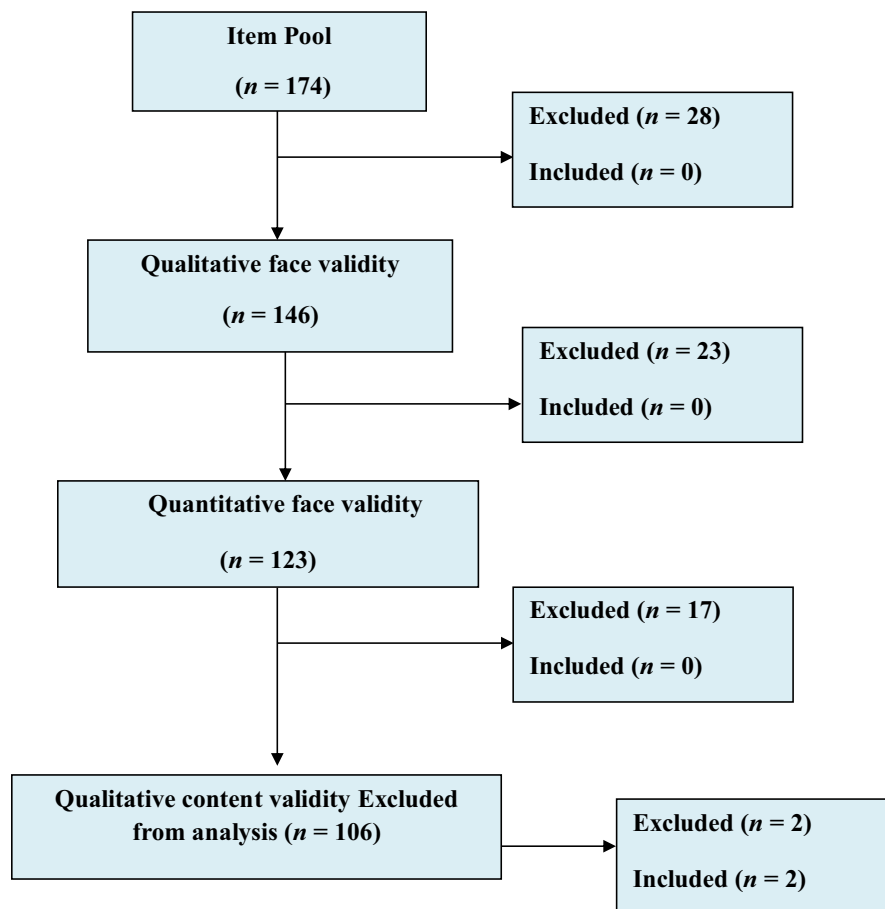
In Conceptualization Phase. According to content analysis, the definition of nursing clinical services accreditation is "systematic evaluation and auditing of all activities of nurses in clinical settings based on agreed and appropriate to the culture indicators and presenting trustful results which lead to improve quality of services." In addition, by analysing data related to indicators for nursing clinical accreditation, 354 primary codes and 59 main codes obtained which allocated in 10 main categories.

In Item Generation Phase. With a survey of the literature and translation, criteria were classified, and by integrating them with the results of phase I, a checklist of accreditation of clinical nursing services was provided. Item pool was categorized into two categories, organizational and personal appraisal level, in general. At the end of this stage, item pool consisted of 174 items. These items reviewed by research team for several times and unnecessary and repeated items excluded. At the final version of checklist, 51 items at the organizational level and 95 items at personal appraisal level, and a total of 146 items were obtained.

In Item Reduction phase. According to expert opinions, some of the items of checklist excluded, some of them merged, and at the end, 123 items (49 items at organizational level and 74 items at personal level) remained in the checklist. In addition, impact score as a quantitative method was used to assess the face validity. 106 of 123 items (86.17%) had a score more than 1.5. Thus, 17 items which were indicators of organizational level were excluded.

After collecting the experts' points of view and consultation with the research team, the necessary changes in the checklist were considered and 2 items excluded and two items included to the checklist. Diagram 1 shows the trend of item reduction in deferent stages of validity process.

To determine the reliability for external consistency, the test result was 0.954, which confirmed agreement between the two

DIAGRAM 1 Trend of item reduction in deferent stages of validity process

responses ($p = .000$). The reliability in terms of internal consistency was excellent ($\alpha = .889$). Main categories of indicators and one exemplar item of each category are presented in Table 1.

5 | DISCUSSION

According to content analysis, the definition of nursing clinical services accreditation is "systematic evaluation and auditing of all activities of nurses in clinical settings based on agreed and culturally appropriate indicators and presenting trustful results which lead to improve quality of services. "Nursing care and related hospital services constitute most healthcare services. The study of Oren et al. states that courtesy, affection, sympathy and understanding demonstrated by nurses and their professional attitude and manner of employing their knowledge and skills play an important role in patient-nurse rapport (Oren, Zengin, & Yildiz, 2016). Considering that the definition of nursing clinical services accreditation has been extracted in this research and is not presented in the texts and definitions, therefore, we compare the definition of this study with the concept of quality of nursing services. In the United States, Burhans & Alligood, in their study in 2010, found the meaning of quality in nursing as meeting human needs through careful, sympathetic and respectful interactions, where responsibility, targeting and support

lay the foundations for Create quality (Burhans & Alligood, 2010). In another study in Thailand conducted by Kunaviktikul et al. (2001), the quality in nursing was defined the degree of care of the patient's physical and mental needs that leads to patient and nurse satisfaction (Kunaviktikul et al., 2001).

The first step is to prepare an accreditation checklist and determine criteria for evaluating nursing services. The study of Jafari, Raeisi, Yarmohammadian, Heidari, and Niknam (2018) in Iran showed that the current standards of the Iranian accreditation assessment system and guidelines lack the necessary infrastructures for implementing a successful national accreditation programme (Jafari et al., 2018). In the present study, nursing services accreditation checklist was designed with 106 indicators; 40 indicators at the organizational level and 66 indicators at the personal level based on the explanation of concept, literature review and interviews with experts in the field of accreditation and nursing. Nursing accreditation criteria in Taiwan include job tenure, book reviews, case analyses, care reports, administrative studies and caring skills and ethics (Teng et al., 2012) in which some of these criteria are similar to present study. Different studies have introduced indicators for nursing quality of care; however, most of them are designed for specific settings, instance American Nursing Association (ANA), National Quality Forum (NQF) Consensus Standards for Nursing sensitive, Healthcare

TABLE 1 Main categories and examples of each category of indicators for nursing clinical services accreditation

	Main category	Level of indicator	Total number of indicators	example
1	Strategic Plan	Organizational	4	Annual action plan in nursing office with measurable indicators
2	Organizational Culture	Organizational	6	Management responsibilities delegated to supervisors/managers by the head of the nursing department
3	Human Resources	Organizational	10	Nurse-to-patient ratio
4	Personnel Developmental Plan	Organizational	5	Hours of in-service training of clinical supervisors in the management area
5	Facilities	Organizational	3	Presence of educational facilities (including library/Internet) for nurses
6	Outcome indicators	Organizational	12	Patient satisfaction or The incidence of errors in patient care by nurses
7	Assessment	Personal	5	Comprehensive nursing assessment of the patient during the first 24 hr of admission
8	Diagnosis and Outcome Determination	Personal	5	Prioritizing diagnosis based on the interpretation of available data and the complexity and severity of a patient's condition
9	Planning	Personal	5	Revise the daily care plan according to the patient's condition?
10	Implementation	Personal	7	Implement intervention in line with the policy and procedures of the treatment centre and by the use of existing guidelines and instructions?
11	Evaluation	Personal	3	Participate with patients, families, healthcare providers and other team members in the evaluation process if required?
12	Documentation	Personal	3	Writes reports based on the correct principles of organizational policies and comply with its instructions?
13	Support	Personal	4	Provides supportive environment for families of dying patient, to express their grief?
14	Cultural Sensitivity	Personal	3	Respects to the cultural, ethnic, socio-economic, spiritual characteristics, religious and other needs of the patient?
15	Effective Communication	Personal	5	Assess and record patients' communication needs since admission to hospital?
16	Client Mobility	Personal	8	Encourages patients to maintain their mobility as possible?
17	Nutrition	Personal	5	Provides help for patients who are not able to eat?
18	Personal Hygiene	Personal	3	Collaborates with the patient and his family in making decisions and about personal hygiene as much as possible?
19	Patient Safety	Personal	10	Provides education to patients/families about ways to prevent the possibility of falling out of bed?

Commission (HC) have been published indicators for acute settings. In current study, research team tried to consider all nursing activities and dimensions of care in a comprehensive checklist which is applicable in all clinical settings. In Australia, quality of care is defined and legislated through the Australian Commission for Safety and Quality in Health Care. This commission has presented a framework that links quality and safety through three core principles: consumer centred, driven by information and organized for safety (Speziale et al., 2011). Each core principle has defined standards identified as The National Safety and Quality Health Service Standards and the 10 standards involve governance for safety and quality, partnering with consumers, managing infections, medication safety, patient identification, clinical handovers, blood products, managing pressure injuries, clinical deterioration and preventing falls (Graneheim et al., 2017). These standards require compliance, using an accreditation assessment of organizational and clinical performance against predetermined standards through both self-appraisals and external third-party

reviews (Edvardsson, Watt, & Pearce, 2017). In a study aimed to develop a set of core elements and their related checklist items for AMS programmes, the results showed that the literature review identified seven core elements and their related 29 checklist items from 48 references. Fifteen experts from 13 countries in six continents participated in the consensus procedure. Ultimately, all seven core elements were retained, and 28 of the initial checklist items plus one that was newly suggested, all with $\geq 80\%$ agreement; 20 elements and items were rephrased. The core elements were as follows: senior hospital management leadership towards AMS, accountability and responsibilities, available expertise on infection management, education and practical training, other actions aiming at responsible antimicrobial use, monitoring and surveillance and reporting and feedback (Pulcini et al., 2019). In this study, face and content validity of the checklist confirmed the simplicity and clarity of statements. Reliability of checklist was confirmed with internal and external consistency. It must be noted that application of the developed checklist is relatively easy, since

in the internal process of auditing a person who is responsible for the audit of clinical nursing services could observe and interview the nurses during a shift and complete the checklist.

6 | CONCLUSION

Based on the results of the study, the accreditation indicators of clinical nursing services were extracted in three dimensions of structure, process and outcome at twice levels of organization (including structural and outcome indicators) and individual performance evaluation (process indicators) in 19 main categories. The checklist and audit guide designed in this study, which is designed with the views of experts specializing in the field of accreditation and nursing, can be considered as a first step in moving towards the validation of nursing clinical services. The study presented a new checklist for the evaluation of clinical nursing services to be used by hospital managers.

Our work has limitations. We did not conduct a systematic literature review, but we are confident that we have not missed significant references as we have included recent systematic reviews on the topic. The number of experts involved in the consensus procedure was relatively small. Like all consensus procedures, ours was biased by the opinions of the experts, who all primarily had the perspective of the steward.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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