

Credential Effectiveness to Improve Nurses Competency: A Systematic Review

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ABSTRACT

The effectiveness of the credentials process is still unclear regarding the competence of nurses. Credentials are one step to increase the clinical authority of nurses in providing nursing services. This study reviewed the effectiveness of credentials test on nurses' competencies. A systematic review was conducted with The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) approach. It broadly used Scopus, Science Direct, and ProQuest database. The search utilized the Boolean phrases "Credential", "Nurse Competency", "Nurse skill", "Nurse ability", "Clinical Practice", throughout the title, abstract, or keywords. The inclusion criteria in the literature study were: original article, journal article, article in English, and available in full text from international databases; Ebsco, Science Direct, Scopus, SAGE, PubMed, and ProQuest. obtained total of 310 articles were obtained, and 15 were considered relevant for this systematic review and limited for the last five years, 2015 to 2020. The articles' quality were evaluated using the Joanna Briggs Institute (JBI) for experimental study type. A total of 15 articles were reviewed. This study found that credentials were effective in improving nurses' clinical competence, professional competence and general competence that could be used in nursing services. Credentials process can be used to improve the quality of nursing services based on increasing the competence of nurses so that it can impact customer satisfaction. Future studies should develop credential processes or instruments and measurement tools that can be applied easily.

Keywords: Credential, Nurse Competency, Nurse Skill, Nurse Ability, Clinical Practice

Received April 17, 2021; Revised April 27, 2021; Accepted May 1, 2021



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BACKGROUND

Recredential processes cannot be optimized in increasing the clinical authority of nurses so that it impact on the quality of nursing services. The quality of nursing service is a manifestation of the duties and functions carried out according to their authority. Research by McMullen & Howie (2020) stated that an unstandardized and sub-optimal recruitment process causes the nursing committee's poor quality of nursing services, responsible for the recruitment process that does not have the expected competencies. It is important to evaluate the nurses' performance and competence periodically. Competition is related to clinical authority achieved by having certification or credentials (He, Kumar, & Chilamkurti, 2015). Nurses' competencies provide an increase in the work productivity (Brooks et al., 2007). The recruitment process is expected to increase the work productivity of nurses so that the result is an increase in the quality of nursing services. The development of work productivity-based credentials cannot be explained, and no research has been found that has developed credentials for nurses.

The quality of nursing services related to service quality does not only occur in Indonesia. Kenya is a country with quality nursing services with a percentage of 51% and patient satisfaction of 67.8% (Wanjau et al, 2012; Ndambuki, 2013). According to Brooks et al., (2007) the quality of hospital services in Indonesia is still relatively good, namely 80%. The quality of nursing services is still at 73.2%, which is still relatively good category. Nursing services are considered satisfactory when needs and expectations are met. Suppose the service raises patient comfort and satisfaction and exceeds expectations. In that case, the interest in using the service will again increase so that patients will seek nursing services that meet expectations, namely comfort and satisfaction (Owaidh et al., 2018).

Improving the quality of nursing services can be done with critical development to ensure each nurse's competence who performs nursing actions. The work productivity model is generally defined as the efficiency of using resources to produce output (Xue & Tuttle, 2017). A measure of productivity, in general, is the risk associated with output (goods and services) against one or more of the inputs (labor, capital, energy etc.) that produce these outputs. This is done to improve the quality of nursing services; nurses need good performance. The components in the work productivity model consist of organizational characteristics, and job characteristics will affect individual characteristics (Faraji, Karimi, Azizi, & Khatony, 2019). Motivation is one example of individual characteristics. Individual characteristics will affect work habits, work habits affect performance, and performance will affect organizational effectiveness and are influenced by several factors: organizational factors, individual factors and job factors. This review is expected to determine the effect of credentials on nurses competence.

METHODS**Search strategy**

The search strategy aimed to find both published and unpublished studies. A three-step search strategy was used in this review. An initial search in MEDLINE, SCOPUS, PROQUEST, SCIENCE DIRECT, and CINAHL databases was first performed, followed by an analysis of the text words in the title and abstract and index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken across all included databases. Third, the reference list of all identified reports and articles was assessed to identify further additional studies. The databases searched included PubMed, CINAHL, Embase Health Source, JBI Database of Systematic Reviews and Implementation Reports, Cochrane Library (DARE, CCTR), Web of Knowledge, BioMed

Central and Health Source: Nursing/ Academic Edition. The search for unpublished studies included ProQuest, Network Digital Library of Thesis and Dissertations, The Dart, TripDatabase, and the Mednar search platform. Initial keywords used: credential, nurse competency, nurse skill, nurse ability, clinical practice.

Study design

The study design of the articles that being included in this Systematic Review is the Random Controlled Trial (RCT) design and published in English.

Population

The population in this systematic review are all studies describing nursing credential intervention with or without a control group, nurses in various ages and discussed the effect of nursing credential intervention.

Intervention

The intervention that included in the article searching were various types of effect of nursing credential intervention

Clinical results

The main result, which is the main objective of this systematic review, is to see the effect of the nursing credential intervention. The research was used without any time limit for the intervention to be carried out.

Study selection

The standard protocol for selecting studies as suggested in the systematic review method guideline is PRISMA. The steps taken are following:

- 1) Duplication elimination
- 2) Independent checks for titles, abstracts and keywords and remove irrelevant citations according to the inclusion criteria,
- 3) If the title and abstract appear to meet the inclusion criteria and are compatible with the purpose of a systematic review, the next step is to select the full-text journal.
- 4) The final step is the selection of journals that use the Randomized Controlled Trial approach to reduce the risk of bias.

Data extraction

Data were extracted from each of the eligible studies. The data extracted included study characteristics, characteristics of credential, outcome characteristics and a summary of the results.

Data analysis

The studies were stratified according to the impact of the nursing credential intervention. If possible, studies were then stratified by time of follow-up and type of control group.

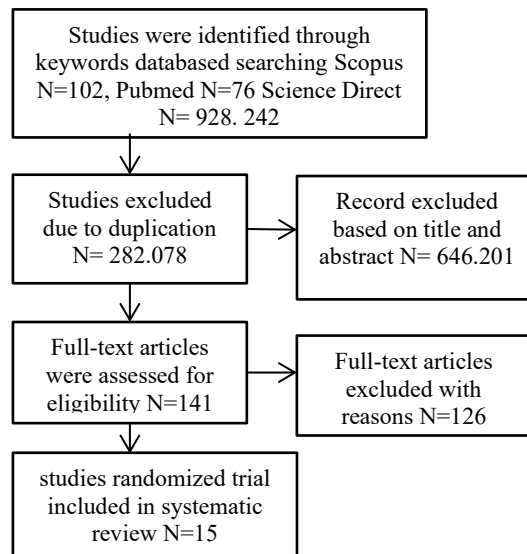


Figure. 1 PRISMA

RESULT

Literature search and study selection

Figure 1 summarizes the search results and selection of studies following the PRISMA guidelines (Liberati et al., 2009). The selection of journals based on the keywords used resulted in 928,420 potentially relevant studies. 282,078 duplicates were removed and 646,201 titles and abstracts found were searched. A total of 141 full-text studies were taken, with 126 studies excluded because they did not meet the eligibility criteria (not using English and not an intervention study). So that 15 studies were selected to be conducted a systematic review.

Population

The study's sample size is in this systematic review, which at least was 78 nurses divided into two groups, namely the control and intervention groups. In comparison, the largest sample size was 710 nurses.

Clinical outcome measures

The study reports the outcome measures used to measure Mini-Clinical Evaluation Exercise (Mini-CEX), competency inventory for registered nurse (CIRN), QI-III, Nursing Performance Profile (NPP), Continuing Professional Development (CPD) and The Satisfaction Of Nursing Career Ladder System (NCLS).

DISCUSSION

The findings from this review suggest that the granting of clinical authority through the credential process impacts nurses' ability and satisfaction. Some of which are satisfaction with the leadership, work and organization. Ability is linked to increased clinical authority so that work becomes more targeted and legal (Franklin, Melville, & Dip, 2013). There are several limitations to the findings of this systematic review. This finding can be explained by the lack of reliable data on the effectiveness of credential interventions concerning timing, the content of credentials and criteria for nurses serving credentials, and unexplained credentialed nurses' levels. Specifically, all interventions in the study started with the first 3

months of the nurse's admission to the hospital as an employee then continued 6 months to 3 years of admission to the hospital (Article, 2017). In several studies, the intervention continued after the nurse received clinical authority by monitoring and regularly evaluating to see to what extent this authority was exercised and useful for nursing services. The evaluation was carried out for 6 months to increase patient satisfaction as service recipients and increase patient loyalty. Nurses may perform actions that have been agreed upon as the current clinical authority (Kahya & Oral, 2018).

Studies include examining the credentials process and advancement to nursing positions (Sastre-fullana et al., 2017). However, an explicit description of what constitutes nursing action under clinical authority is not stated. Several studies suggest that post-credential nurses can do many things, including performing delegation and management actions (Franklin et al., 2013). Furthermore, substantive heterogeneity was found across intervention providers, interventions used in transition care and outcome measures across studies (Karami, Farokhzadian, & Foroughameri, 2017)(Liu et al., 2019)(Hinton et al., 2017). This may reflect the complex nature of multilevel interventions, such as nursing credentials. The clinical heterogeneity between studies suggests that effect sizes may differ according to the intensity of the intervention and/or duration of follow-up. Six studies included follow-up post credentials as a major part of the intervention. This component contributes to the continuity of clinical authority and nursing action (Scanlon, Bryant-lukosius, Lehwaldt, Wilkinson, & Honig, 2019).

Indeed, the credential includes assessing available resources and the patient's specific needs, enhancing self-management capacity. Involve patients in making decisions about their care and improving nursing services. Thus, because credentials cover multiple levels of interaction, insufficient attention to some (or all) of these components can help explain the lack of an overall observed effect. A nursing credential is a complex intervention that is influenced by various interacting dynamic elements (He et al., 2015). The structure and organization of the health system appear to be one of the most influential aspects of this process. Evidence for this comes from the findings of our subgroup analysis that studies conducted in the UK showed a significant impact on nurses' ability levels to administer nursing care. It is difficult to conclude whether this effect results from a particular component of the nursing credentials or if this stems from the fact that nursing credentials have a long history in England (McMullen & Howie, 2020). Moreover, these findings may reflect legislative and financial aspects of their health care systems, which are very different from other countries included in this systematic review. Recent complex nursing interventions include many confounding variables and factors that make it very challenging to collect and compare data and results. This systematic review aimed to analyze the clinical evidence of interventions based on a journal review that found that credentialing interventions on nurses are satisfaction and clinical privileges. There are several potential limitations associated with this systematic review. (1) The search was limited to published studies, which might introduce a risk of publication bias. (2) Bias may be introduced by how the study was selected or the search criteria set. (3) What we consider to be the primary outcome (clinical privileges and satisfaction) is not always the same as in other studies.

CONCLUSION

Future studies should develop credential processes or instruments and measurement tools that can be applied easily.

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