Review Article

GAVIN PUBLISHERS

The Effect of Nurse Leader Qualification on Position Outcome: Systematic Review

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Abstract

Background: Nurse leaders influence policy, change, and outcomes on the part of patients and junior nurses, and they are critical in resolving conflicts and in decision making. A clear understanding of whether high qualifications or experience impact more on a nurse's leader's outcomes is necessary. **Aims:** To examine whether an advanced practice registered nurse with higher qualifications is considered by themselves and by junior colleagues to have better position outcomes than one who is in the same job level but who has lesser experience and less qualifications. **Methods:** This review followed the methodological framework for systematic reviews described in the PRISMA statement and PRISMA checklist and the Cochrane Collaboration procedures to review quantitative studies published between 1t January 2015 and 31 December 2023. **Results:** This review included thirteen articles after screening articles from six different databases. The settings for the studies included a private hospital (n=1, Turkey), medical centers at University of California (n=1, USA), general hospital setup (n=3; Egypt, Taiwan, Ethiopia), trauma hospital (n=1; Iran) and clinics (n=2, Sweden, South Africa), ICU (3 Saudi Arabia, Sweden, Ethiopia). In terms of study designs, all the studies were interventional with five described as quasi-experimental studies (pre-test and post-test studies designs) and 8 Cross-sectional study design studies (completed through surveys questionnaire). Key findings highlighted the impact of nurse academic qualification and experience on position outcomes. **Conclusion:** Quality of nursing care is dependable on nurse staff qualification as nurses with higher academic qualifications have better position outcome than those with inferior qualifications.

Introduction

Nurse leaders are expected to have deep knowledge, skills, and a great attitude and leadership skills [1]. Such roles are associated with strong academic qualifications and/or years of experience that translates to provision of patient safe care. As nurse leaders, nurse manager competencies were, in a study by Choi et al. (2022) [2] found to be directly related to the nurse outcomes, whereby five key domains of nurse manager competences (staff advocacy and development, team communication and collaboration, change and resource management, quality monitoring and pursuance, and personal mastery) directly affected job satisfaction.

Advanced degrees do not necessarily make nurses leaders, according to [3]. Effective nurse leadership is instead, the capability of one to provide effective support to colleagues, and to act as a role model, aspects that require a combination of knowledge (from training) and experience. A cross-sectional study published recently revealed that for junior nurses, competent and effective clinical nursing leadership revolved around effective communication, approachability, and support for nurses, role modelling, and clinical competence [4]. The ability to help new nurses to adjust and fit into a hospital setting, to ensure any gap that exists between college education and clinical practice is bridged,

as outlined by Lee and Sim (2019) [5] where new nurses working in the neurology ward often have big gaps in their knowledge, is also a key aspect of a nurse leader.

An effective nurse leader is one who can effectively work and lead in a wide range of settings, including in schools, homes, clinics, shopping centres, in prisons and field hospitals. Nurse leaders, therefore, need deep knowledge on diverse aspects of nursing, and need to motivate other nurses to deliver care to a wide range of patients and their families in multiple subjects ranging from economics and psychology, to research methods, pharmacology, anatomy, physiology, psychology, and sociology [6]. Consequently, the nurse leader must have requisite academic qualifications, which according to [7], can help to not only lower the number of preventable hospital and community deaths, but can also open up more opportunities for career advancement for the nurse leader and for junior nurses as well. Additionally, nurse leaders influence policy, change, and outcomes on the part of patients and junior nurses, and they are critical in resolving conflicts and in decision making [1].

Systematic review exploring the relationship between nursing leadership and nurse performance identified high qualification and years of experience as important factors in nurse performance [8]. A clear understanding of whether high qualifications or experience impact more on a nurse's leader's outcomes is necessary. In this study, the position of the Advanced Practice Registered Nurses

(APRNs) will be considered, with emphasis on whether an advanced practice registered nurse with higher academic qualifications is considered by themselves and by junior colleagues to have better position outcomes than one who is in the same job level but who has more experience and less academic qualifications.

Research question

Is a nurse leader who possesses high academic qualifications in their place of work more professional with regard to their position outcomes as compared to a nurse leader who does not hold such high academic qualifications but is relatively more experienced and whose position was attained largely due to experience?

Method and Materials

Study Aim and Design

This study used quantitative systematic review study design to establish whether nurse leaders with higher qualifications are more professional in their position outcomes than those with lesser qualification and/or experience.

Search Strategy

The search strategy was based on the Population Intervention Comparison, Outcome and Study (PICOS) as follows;

Population	Intervention	Comparison	outcome	study
Nurse leaders	Skill enhancement training	Competence	Nursing outcome	Systematic review
Nurse managers	Nurse management	Academic qualification	Patient outcome	Non-systematic reviews
Nurses	Work experience	Skill enhancement	Organizational outcome	
Advanced practice registered nurse (APRN)				

The process began with an iterative broad search on Google Scholar to develop and refine the key words and index terms yielding the following search terms (with strings combined using the Boolen operator "AND"):

"Nurse leaders" OR "nursing leadership" OR "clinical leadership" OR "nurse manager" OR "nurse supervisor" OR "nurse administrator" OR "nurse director" OR "head nurse" OR "advance practice nurse" OR "specialist nurse"

AND

qualification* OR academic OR academ* OR education OR educat* OR training OR train* OR competence OR compet* OR performance OR perform* skill* OR knowledge OR know* OR experienced experienc* OR certificate* OR certific* OR credential OR credent*

AND

"patient outcome" OR patient-report* OR treat* OR safet* OR mortality OR death OR satisfac* OR "length of stay" OR "adverse event*" OR "readmission rate*" OR treat* OR missed* OR near* OR medicat* OR event* OR "pain* OR "critical*" OR complaints* OR organization OR "organiz* OR empower* OR workplace* OR work*

We then searched the following electronic databases; SCOPUS, Pubmed, Academic Search Complete, CINAHL Complete and Health Source for citations. Search strategy was tailored to each specific database with guidance from a university library staff. We performed the searches by putting the search terms on the search engine of each database and limited the searches to peer-reviewed articles published in the English language between January, 01 2015 and December, 31st 2023 to obtain an updated position of the research area.

Eligibility

The inclusion criteria were limited to quantitative peer-reviewed articles published in English investigating nurse leader with more qualification, experience or enhanced training and position outcome. The included studies also had to include the prospective interventions that were designed to enhance the leadership qualities of the nurses and the position outcomes. Leadership level can be described at

four levels; Level 1 (reaction, that is, the degree to which nurses find training favourable and engaging) level 2 (learning, that is, knowledge and skills) level 3 (behavioural change), level four (results and outcomes), (Kirkpatrick & Kirkpatrick, 2009) [9] to identify the outcome of leadership enhancement or intervention. This review will include studies reporting levels two and four of the Kirkpatrick and Kirkpatrick leadership evaluation model.

Quality Assessment

The final data had 13 cross-sectional studies as follows; quasi-experimental studies (n=4) and Cross-sectional study design studies (n=9). Two authors assessed each article using the 20 criteria outlined in Appraisal of Cross-sectional Studies checklist by Downes et al. (2016) [10]. The appraisal of cross-sectional studies checklist by Downes et al. does not include guidelines on quality assessment rating, and therefore the authors ranked the items collaboratively. We agreed that a study was satisfactory if the scores for YES ranged between 11 and 13 of the criteria, good if the score ranged between 14 and 16 and very good if the score ranged between 17 and 20. Two studies were deemed satisfactory and others (n=11) had good quality. All the included studies had clearly stated aims/objectives, used appropriate research methods that can be repeated and justifiable sample sizes. The measurement instruments were trust worth. Also, the studies used SPSS software package and stated the statistically significant level. However, 10 out of 13 studies did not report the confidence levels and eight studies did not describe the compounding factors.

Data Collection Process

The screening process was done by collating and uploading the identified citations into the Rayyan.ai collaborative tool for systematic reviews. The search yielded 2,453 unique entries as follows; CINHAL 132 sources, SCOPUS 1772, PubMed 334, Health Source: Nursing/Academic Edition 200 sources and Academic search complete 15 sources on 21st November, 2023. After removing duplicates (136), 2,317 articles remained and the first and second reviewers screened the abstracts and titles for eligibility. After screening the abstracts and titles, 2107 articles were discarded for irrelevancy and 210 references were identified for full-text screening. During this process, the third reviewer solved any disagreements by consensus building and discussions. The authors then reviewed each article independently and excluded 197 references as follows; did not include nurse qualification/experience, did not address the review question, included other health professionals, not related to health care settings. In total, 13 references were included for this review (Table 1). The Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) flow diagram (Figure 1) displays the screening process.
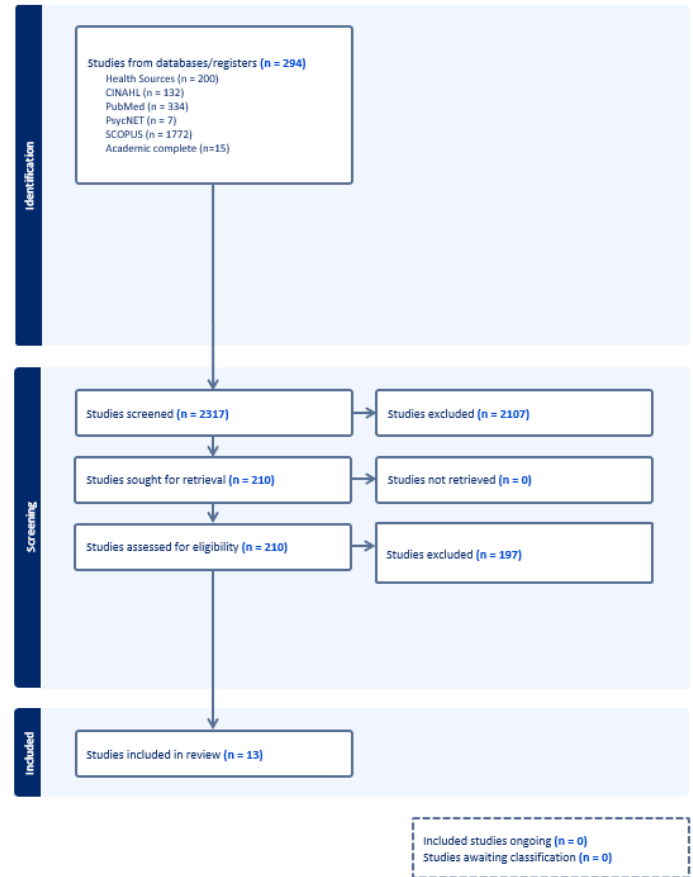

Figure 1: Nurse leader qualification and Position outcomes.

Data Extraction and Synthesis

An excel data charting form was collectively developed by the authors to extract information from each reference as follows; name of author and year of publication, location and setting, participants, purpose, design, intervention, important findings, method of data collection, method of analysis and limitations as seen in Table 1.

Results

Characteristics of the studies

The included articles were published between January, 2015 and December, 2023. The settings for the studies included a private hospital in (n=1, Turkey), medical centers at University of California (n=1, USA), general hospital setup (n=3; Egypt, Taiwan, Ethiopia), trauma hospital (n=1; Iran) and clinics (n=1, Sweden, South Africa), ICU (Saudi Arabia, Sweden, Ethiopia).

In terms of study designs, all the studies were interventional with five described as quasi-experimental studies (pre-test and post-test studies designs) and 8 Cross-sectional study design studies (completed through surveys questionnaire). For the study participants were described as; first-level nurse managers, advanced practice nurses and nurse educators, operating theatre nurses (OTNs) with managerial responsibility, registered Nurses, nurses and degrees in nursing including diplomas, bachelors and master's levels were described in all the studies. The participants ranged from 18 to 450 nurse.

Nurse managerial competencies and professional skills

The studies pointed to the importance of nurse managerial competence in running daily nursing activities [11-14]. In the first study, Goktepe et al. (2018) [11] found that nurse managers aged ≥ 35 years, with ≥ 15 years of experience in the health profession and over 10 years in-service in the present hospital facility had higher pre-test scores compared to other nurses. Implementing training program led to a substantial increase in nurse managers' managerial competency self-assessment scores. Goktepe et al. (2018) [11] observed an improvement in 21 out of 2 managerial competency realms with a significant increase in areas such as leadership, total quality management, authority development, and business management. Post-training test scores showed no significant increase in competency areas such as nurse labor planning, and running daily unit operations indicating that nurses were already confident in these areas. We contend that the Nurse Manager Development Program contributed immensely to improving nurse managers' managerial competencies and professional skills, and highlight a future need for evaluating how nurse managers utilize the skills gained over the long term. Similarly, [12,13] called for continuous competency development programs and training for new nurses to be able to make informed decisions in their practices and customized educational programs in addressing the specific needs of nurse managers and enhancing effectiveness in healthcare leadership.

In another study, [14] examined Operating Theatre Nurses (OTN) with self-related competencies, managerial responsibility, and the need for competence development in nursing perioperative practices. The study employed a cross-sectional research design. The data collection was done from 303 operating theatre nurses, 80 of them had managerial responsibility. The themes revolved around the comparison of OTNs with and without managerial responsibility associated with clinical competence, and the need for development of managerial responsibility competence.

Education level

Education levels varied significantly among participants in the studies, yet academic qualification was an important factor in nurse manager's performances [11,14-16]. In one study, the average age was 50 years, with 49% of nurse participants with over five years of experience 50% of participants had 20 years of experience in in perioperative care [14]. [14] found that OTN nurses with managerial responsibility and academic degrees self-rated their clinical competencies higher than nurses without degrees and with less than five years of experience [14]. OTN nurses with 1-year advanced nursing and RN education in theatre care with 60 master's credit units demonstrated a lower need for competency development related to critical thinking, professional development, consultation, and cooperation. It can be deduced that that OTNs with an academic degree, managerial responsibility, and RNs developed a critical approach to nursing practice and can handle different complex situations. Inexperienced nurses with less than five years' experience demonstrate higher need for competency development and require more support from experienced colleagues.

Dahlberg et al. [15] study described and compared various levels of technical and educational skills in registered nurses operating in post-anaesthetic care units and the education that registered nurses working in these departments desire. The study utilized data from PACU to compare the technical skills of RN specialist nurse and RNs and the differences between the two categories was analysed using chi-square. In the characterization of the organization, 71% of participants reported caring for outpatients and inpatients. Five units cared for all patients in all categories, while 31 units offered post and pre-operative care [15]. Variations were witnessed in weeks of introductory training for new nurses ranging from 2 to 14 weeks. In terms of level of education, it was found that 53% of employed RNs were specialists, especially in intensive care unit. 6% of employed RNs lacked a postgraduate diploma. 51% of nurse managers reported that they desired RNs working in PACU to be RNs with post-graduate education or specialists in postoperative care. 31 out of 45 nurse managers reported that they would like nurses to have additional education in postoperative care. However, this study found that specialist nurses and RNs without postgraduate diplomas had similarities in terms of technical and never performed tasks autonomously.

Experience

Nurses' clinical knowledge and experience improves communication skills, coordination and mentoring needs, and are anticipated to improve patient care in the future [16-18]. Alshahrani et al. (2023) [16] explored nurses' attitudes and knowledge towards pressure injury prevention. The pre-intervention involved administration of instruments such as the Pressure Ulcer Knowledge Assessment Tool version 2, and demographic information. The pre-intervention comprised 190 participants while post-intervention comprised 195 participants. The mean score for pre-intervention nurses' attitudes and knowledge was 74.77% and 43.22% respectively. After training

intervention, the mean scores for nurse attitudes and knowledge increased significantly to 79.02% and 51.22% respectively. There was a positive correlation between positive attitudes toward injury prevention and higher knowledge of pressure injury prevention. In this study, experiences in ICUs, nurse clinical experience, and age positively correlated with the knowledge of pressure prevention. Higher education achievements such as a bachelor's degree indicated better attitudes and knowledge toward pressure injury prevention.

Anderson et al. (2017) [17] evaluated and implemented a palliative care professional program for nurses based in the ICU. The study adopted a 3-day train-the-trainer approach for nurse educators and palliative care nurses for three years from 2013 to 2015, and subsequent monitoring and evaluation of the program implemented in the ICU sector. The study used surveys for quantitative data and notes taken during 3-day nurse training. The intervention adopted was a palliative care advanced practice program that comprised four structured rounds in ICUs and an 8-hour communication workshop in ICU bedsides. The primary findings were the identification of palliative care needs and nurse ratings of communication needs during the coaching rounds. The findings from 6 workshops from the center indicate that nurses rated their communication skills higher after 15 days workshop of tasks such as assuring families get adequate information during in-family meetings and responding to distress in the family. In each ICU sector, the nurse coaching rounds lasted for 3 hours monthly. The nurses identified palliative care needs for 82% of 1110 patients in ICU bedsides including uncontrolled symptoms in 53% of patients, anxiety in 13% of patients, shortness of breath in 14%, and confusion in 10% of patients [17], and developed plan to handle those needs. This means the training improved nurses' rating experiences and involvement in communication in palliative care. Hsu et al support the results of the study indicating that experienced nurse aides were more accustomed to competencies such as managerial capabilities, work ethics, caregiving competence, interpersonal communication and relationships, and professional and personal growth than registered nurses.

Mentorship Roles

[13] investigated the impacts of mentorship educational programs on nurse mentor's performance. The study adopted a quasi-experimental research design that incorporated pre and post-tests. The study collected data using three tools, Nurse Mentor Performance Assessment, Mentor Competence Instrument, and Mentor Knowledge Questionnaire. The novice nurse tests were utilized to determine differences in pre and post-test scores while chi-square was utilized to compare significant differences in the tests. The themes in the study revolved around mentorship competence and nurses' performance before and after the implementation of an educational program. The initial findings indicate a significant

increase in nurses' performance and mentorship competencies after implementation of an educational program, a rating of 56.1±13.2, and 60.5±4.9 compared to pre-test scores of 37.1±4.1, 49.7±6.9 [13]. Cohen's test indicates that educational programs have substantial impacts on nurse performance. The study concludes that educational programs on nurse mentorship competencies substantially improved the mentorship performance of the nurses and called for the adoption and generalization of innovative and novel mentorship programs for various nurses' stages to enhance the development and continued growth of nurse students and nurse mentors.

HSU et al. (2021) [18] investigated the differences between the nurse work competencies as perceived and reported individually by a nurse aide and registered nurses. An Independent sample t-test was used to determine differences in the registered nurse and nurse aides' mean scores on the work competency scale. There were significant differences in terms of nurse aides' self-reported work competencies in relation to activity design with nurse aides reporting that they were more competent in activity design tasks than reported by RNs. With years of experience, nurse aides were more accustomed to competencies such as managerial capabilities, work ethics, and professional and personal growth than novice RNs. Also, nurse aides were more competent in caregiving competence, interpersonal communication and relationships, and in work ethics. However, nurse aides were less competent in cooperating and communicating in the department, undertaking an evaluation of the effectiveness of implementing an activity, and designing activities that resonate with patients' needs. We deduce that nurse aides should be more involved in cross-disciplinary teams to hone their skills and competencies.

Online Training Programs

Farokhzdian et al. [12] examined the effectiveness of online training programs in enhancing nurses' competencies during disaster risk management. The study adopted an interventional approach undertaken on nurses working in a trauma hospital facility. This comprised two groups, 42 nurses were in the intervention group and 39 nurses were put in the control group. The intervention group was given a four-session online training and both groups completed a questionnaire related to demographics and their perceived core competencies in disaster online. The NPDCC competence scale was utilized to determine significant differences in nurse disaster preparedness competencies. The initial results indicate that there were no significant differences in competency scores for both groups prior to intervention implementation. After the implementation of the educational program, the NPDCC score in the intervention group was substantially significant, but no significant differences in the two groups after intervention. The study concludes that online training had substantial improvement on NPDCC nurses' scores, but the improvement was not

significant and calls for continuous manoeuvres and practical exercises that enhance the perception of nurses' competencies needed for managing disasters effectively. The results differ with Hagrass et al. [13] who investigated the impacts of mentorship educational programs on nurse mentor's performance. [13] quasi-experiment shows that educational programs on nurse mentorship competencies substantially improved the mentorship performance of the nurses and also calls for the adoption and generalization of innovative and novel mentorship programs for various nurses' stages to enhance the development and continued growth of nurse students and nurse mentors. Therefore, customized educational programs should address the specific needs of nurse managers and enhance effectiveness in healthcare leadership.

Kigozi-Male et al. [19] examined the primary healthcare nurses' attitudes and knowledge towards mental health and patients in South African municipalities. The results indicate that the mental health knowledge score was 23 out of 30. Nurses were less knowledgeable about the help-seeking behavior of mentally ill persons (58%), recovery (46%), and employment (46-3%). Professional nurses' mean mental health knowledge score was slightly higher (22.8) compared to assistant or enrolled nurses (21.1). Nurses' mean attitude score was 40.68 out of 96. Two out of five nurses reported having negative attitudes towards mental healthcare and people with mental problems. Factors such as prior mental health training, before service, job category, and age significantly contributed to predicting nurses' outcomes.

Cultural Competency

Birhanu et al. [20] investigated cultural competency and related factors among healthcare nurses in public institutions. The study employed a cross-sectional research design based on institution. The design comprised 362 nurses randomly selected. The data collection tools included the Nurse Cultural Competence Scale that collected data on nurse cultural competence. The overall cultural competence for participants was 113 and a mean score of 32. The presence of feedback in hospital facilities (B; 13.5, CI; 9.5_17.5), bachelor education (B;-20.3, CI;-28_-12.3), diploma education (B; -23.2, CL;-32_-14.8), previous experiences in other healthcare settings than the current (B; -11.5, C;-18.5_-4.8), and nurse-to-patient ratio Nurse-to-patient ratio (B;.93, CI;.59_1.3), was found to be the significant predictors of cultural competency [20]. The study concludes that cultural competence among nurse participants was moderate and calls for providing educational opportunities to enhance cultural competence, raise the nurses' educational levels, and enhance feedback mechanisms in healthcare settings.

Alrashidi et al. [21] investigated the factors impacting the approaches of primary healthcare nurses in curbing emerging chronic diseases. The study employed a descriptive cross-sectional research method incorporating 213 primary care participants. Multiple regression analysis determined factors significantly affecting approaches for curbing chronic diseases. The results indicate that the average number of patients daily ($F = 0.132$; $P = 0.004$), number of attended training sessions ($F= 1.562$; $P = 0.003$), and number of experiences in years ($F =0.132$; $P= 0.007$), significantly exhibited differences in preventive measures towards novel chronic diseases. The number of training courses covered annually ($B = 0.098$; $P = 0.003$) and nurse experience in terms of years ($B =.091$; $P = 0.003$) was associated with improvement in primary healthcare approaches. The study concludes that primary healthcare nurse's clinical exposure and training experiences greatly impact measures adopted in preventing chronic disease. Registered nurses with extensive work experience especially before an outbreak of a chronic disease are more prepared to undertake critical elements of care and improve patient safety.

Malinga and Dlungwane [22] investigated the practices, attitudes, and knowledge of nurses about pressure ulcer prevention. The study adopted a descriptive cross-sectional design with analytical components and found that nurses' mean knowledge was low with a score of 69.1 % of 225 participants. The knowledge per hospital ward ($p > 0.001$), years of experience ($p = 0.002$), previous experience in managing ulcers ($p = 0.001$), and rank ($p = 0.001$) were statistically significant. The average nurse practice score was 56.2% and a large percentage of nurses (58%) demonstrated positive attitudes toward ulcer prevention. This means the nurse's practices and knowledge are rated as unsatisfactory, while their attitudes are positive.

Tadesse et al. [23] investigated the nurses' practices and attitudes toward pain management in the post-operative paediatric unit. Multivariate and bivariate logistic regression was performed to determine factors linked with practice and knowledge of postoperative pain management in the paediatric unit. The results indicate that 42.5 of entire nurse participants had good knowledge of post-operative paediatric pain management. 38.1% of nurses had good practice for postoperative pain management in the postoperative paediatric unit. The study found that training (AOR=7.16 [95% CI, 2.33-22.04]), pain management content in paediatric unit incorporated in nursing curriculum (AOR= 5.96 [95% CI, 2.45- 14.51]), years of service years (AOR=0.009 [95% CI, 0.001-0.11]), and educational level BSc (AOR=0.107 [95% CI, 0.03-0.38]), and Diploma (AOR=0.04 [95% CI, 0.008-0.22]) were significantly linked with nurses practice and knowledge in post-operative pain management. The study concludes that improved educational levels and improved insight training for nurses help enhance pain management. Similarly, [22] also found that knowledge per hospital ward ($p > 0.001$), years of experience ($p = 0.002$), previous experience in managing ulcers ($p = 0.001$), and rank ($p = 0.001$) impacted the practices and knowledge on pressure ulcer prevention. Additionally, the results are supported by Bloomberg et al. (2022) [14] study on operating theatre nurses (OTN) with self-related competencies, managerial responsibility,

and the need for competence development in nursing perioperative practices. [14] conclude that OTNs with an academic degree, managerial responsibility, and RNs developed a critical approach to nursing practice and can handle different complex situations. Inexperienced nurses with less than five years' experience demonstrate higher need for competency development and require more support from experienced colleagues.

Discussion

Based on the results in this review, we observe and support the assertion that improving access to higher levels of nursing education for nurse leaders impacts the quality of nursing practice, which by extension reduce nurse job stress and burnout. For the nurse leaders to showcase a measurable position outcome, they must perceive that their talents are put to work and their efforts are valued. An experienced and educated nursing force is characterized by a high level of competence in three realms of leadership; clinical competence and expertise, skills of teambuilding and relationships and personal qualities [24]. Clinical leadership has been described as an ambiguous and unclear concept [25-28], and improving nurse qualification and experience can guide further development of tools not only to enhance effective nurse leadership in hospital settings and position outcomes but also to shade more light on the concept of nurse clinical leadership. The findings of this study show that nurse leaders with high qualification are more competent, confident and knowledgeable which adds to the previous work on nursing qualification that focused on critical reflection during practice, emotional intelligence and psychological empowerment. There are possibilities that some competencies have not been identified and can still be explored in greater depth.

From the appraised studies, implementing leadership enhancement programs such as The Nurse Manager Development Program, Train-the-Trainer Program [29] and Nurse online training kit Farokhzadian [12] should outline the essential knowledge, skills and competencies a nurse leader should exercise and provide a guide for further improvement of the hospital setting. Equally worrying is that some hospitals have limited staff nursing expertise, experience and a bachelor's or a master's degree. This impacts on quality of care in the long run, and strategic work is limited when nurse leaders lack the prerequisite academic qualifications. The studies have shown that the lack of nurse managers with high qualifications leads to missed quality nursing care that compromise patient safety. This means that the few available specialist nurses are devoid of the necessary conditions to provide high-quality care to the full extent of their training. The studies have pointed to effectiveness of the nurse leadership programs in capacity building of nursing staff. It is anticipated that the capacity building programs such as The Nurse Manager Development Program and Train-the-

Trainer Program [29] and Nurse online training kit Farokhzadian [12] will be used in imparting the essential knowledge, skills and competencies a nurse while empowering them to practice to the full extent of the scope of practice competently.

It is noted that the interventions in all the reviewed studies achieved significant improvements in terms of nursing competencies, skills, dispositions and behaviors in leadership [15,16]. The improvement in skills, competencies and knowledge is essential if all nurses have to gain trust and impact positively on quality of nursing care. Even when a bedside nurse has unrecognizable leadership position, placing trust in them to demonstrate their skills and capabilities gives them the confidence to handle practical problems, make sound decisions, learn and manage his or her behavior. In fact, empowering nurses enables them to achieve a desirable status or authority [30,31] and helps them to manage complex situations autonomously.

Limitations

This review was limited to studies published in the identified databases only and those published in English. There was also a limitation in the study design where interventional studies with pre-test and post-test designs were prioritized. This means randomized controlled studies and qualitative design studies were excluded. Future research should be more vigorous in selection of study design

Conclusion

This review provides information that will guide the designing and evaluation of workplace policies that encourage nurses to attain higher qualifications and experience. On the basis on these reviews, we suggest the use of multicomponent, theory-practice driven capacity building programs for enhancement of nurse clinical leadership in hospital settings to improve position outcomes of nurses. The programs should facilitate life-long learning to support nurse leaders without high academic qualifications gain the competencies and skills necessary to serve in higher position. Therefore, there is need to develop nurse's clinical leadership instruments that support development of a nurse and enhance their position outcomes.

Implication for practice

Organizations, hospitals and policy makers to use the knowledge from this review to identify the needs of nurse leaders and design training programs that develop competent clinical nurse leaders in hospitals and community health practice to enhance the quality of care. The targeted project should capture the ability and knowledge of bedside nurses to work autonomously and practice to the full extent of their training.

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