

The Value of a Nursing Mentorship Program to New Graduate Nurses: An Integrative Review

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Abstract

Nursing shortages often lead to suboptimal staffing characteristics, such as low staffing levels, high turnover, low Registered Nurse (RN) percentage among the professional staff, and more frequent use of nurse overtime. The aim of this integrative review is to identify the best evidence-based interventions that may improve retention of the new graduate nurses and improve their job satisfaction. Various databases were searched such as; PubMed, EMBASE and CINAHL between 2000 and 2016. As a result, three themes emerged from this review (1) retention rate of the new graduate nurse; (2) impact of a mentorship program on job satisfaction and self-confidence and (3) the effect of a nurse residency program participation on patient care outcomes and new nurse's skills. The conclusion of this review has braced the development of a nurse mentorship program for the new graduate nurses as a recommended strategy that will fit the organization's needs to increase the number of Saudi national nurses within the organization. However, full support and dedication from all the stakeholders is needed to make it a successful program.

Keywords: Retention, Mentor, Turnover, New RN, New Nurse, Mentor Program, Nurse Residency, Mentorship, Intention to Stay, Job Satisfaction

1. Introduction

There is a strong relationship between an adequate nursing staff and safe patient's outcomes. A sufficient nursing staff reduces medication errors, patient complications, nurse fatigue, and nurse burnout; it also improves patient satisfaction and increases nurse retention and job satisfaction (Molyneux, 2011). Healthcare organizations require a stable, highly trained, and fully engaged nursing staff to provide effective levels of patient care. Therefore, a nursing shortage negatively impacts an organization's ability to meet patients' needs and to provide high-quality care (Hunt, 2009).

Currently, there is a worldwide nursing shortage. In 2013, the International Council of Nurses Workforce Forum found that most industrialized countries are or will be imminently facing a nursing shortage due to the increased demands for healthcare (Li, Nie, & Li, 2014). A survey performed by the World Health Organization (WHO) found that 77% of developed countries are facing a nursing staff shortage, with nearly all of the countries relying on nurses from abroad to ease this situation (Rutter, 2001).

Furthermore, the high turnover of expatriate nurses and the low recruitment of Saudi national nurses have led to a serious nursing shortage in Saudi Arabia, in general, and in this organization, in particular (Al Yami & Watson, 2014). The problem worsens with the increased turnover of graduate nurses from the clinical practice environment. Thus, it becomes necessary to maintain a significant number of qualified graduate nurses to satisfy the growing need of the healthcare system (McCalla-Graham & De Gagne, 2015).

2. Background and Significance

In the United States, the Bureau of Labor projects a need for 525,000 replacement nurses in the workforce, bringing the total number of job openings for nurses due to growth and replacements to 1.05 million by 2022 (AACN, 2014). Other nations throughout the world have similar shortages. In the United Kingdom, the Royal College of Nursing found that nearly a quarter of registered nurses intend to retire in the next five years, and Britain's healthcare industry is presently suffering a nursing shortage of 24,000 (Wood, 2015). Likewise, in Australia, the national training plan undertaken by Health Workforce Australia predicts a workforce gap of between 80,000 to 147,000 nurses by 2025 (Murphy, 2012). A large majority of hospitals in Taiwan are also short of nurses. This shortage has been particularly severe in recent years and has led to the closing of wards in some hospitals, according to the results of a National Union of Nurses' Associations survey (Central News Agency, 2011).

Saudi Arabia has a chronic shortage of Saudi healthcare professionals, particularly nurses, which is accompanied by a high turnover rate (Abu-Zinadah, 2006; WHO, 2006). Expatriate nurses form a large proportion of the nursing staff in Saudi healthcare facilities (Ministry of Health [MOH] 2013; WHO, 2006). Statistics from the MOH (2013) show that the total number of nurses in all healthcare sectors in Saudi Arabia is approximately 101,298, yet only 29.1% of them are Saudi Arabian nurses as figure 1 shows.

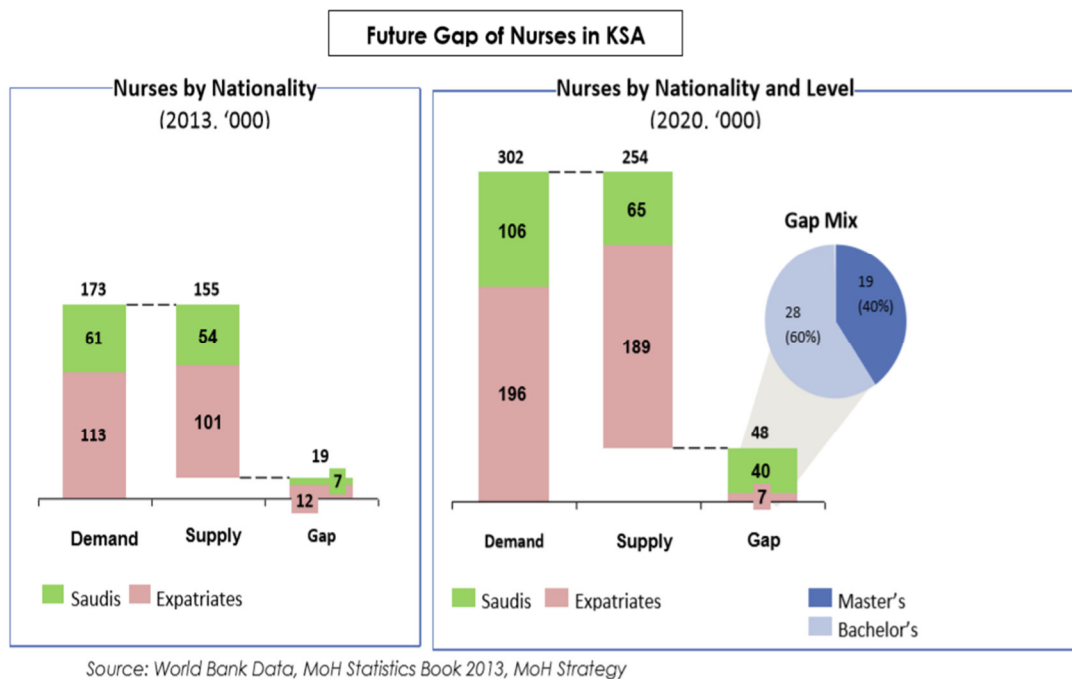


Figure 1. Nursing Shortage in Saudi Arabia

Despite the Saudi government's and the MOH's efforts to attract and to retain Saudi RNs, the nursing profession continues to face obstacles that contribute to the nursing shortage, such as the poor image of the nursing profession, limited options for balancing work and family responsibilities, and working environment challenges (AlYami & Watson, 2014). The poor social image of nursing is a crucial factor that impacts the global shortage of nurses in Saudi Arabia, and it was found to be a major barrier that prevents high school students from becoming nurses (AbuAlRub, 2007; Al Thagafi, 2006; Al-Omar, 2003; Goodin, 2003; Takase, Maude, & Manias, 2006). Al-Omar (2003) conducted a study in Saudi Arabia to explore high school students' perceptions of nursing as a possible career. He found that community image, family disagreement, cultural and communal values, long working hours, and interacting with members of the opposite gender during work were the main reasons Saudi females did not choose nursing as a career.

Not surprisingly, the Institute of Medicine's (2004) report, "Keeping Patients Safe: Transforming the Work Environment of Nurses," indicates that low nurse staffing in hospitals contributes to 98,000 preventable deaths each year in the United States. Similarly, a lack of nursing care leads to a diminished quality of care and to poor patient outcomes (Kalisch, 2015). In summary, staff shortages caused by slow recruitment are associated with significant decreases in the general quality of patient care, with increases in the length of patients' hospital stays, and with greater numbers of hospital-acquired patient illnesses (Hunt, 2009). Because the phenomenon of turnover is so costly and affects the quality of care, healthcare organizations have been challenged to design effective programs that offer support for new graduate nurses to ease their transition into practice and subsequently improve retention.

3. Clinical Context

The clinical context is a private tertiary hospital that includes a main campus and facilities in four other district facilities. The hospital serves a population of 360,000, which includes employees and their dependents, through inpatient and outpatient services. The Nursing and Clinical Services Department is one of the largest departments, with a total of 1,350 employees, 1,180 of whom are RNs and Allied Health (AH) professionals who have earned a two-year nursing diploma. Table 1 explains the current nursing levels at the organization.

Table 1. Nursing Levels

Nurse Level	Qualification
Leadership	Bachelor's degree and above with leadership certificate
Clinical Nurse Specialist (CNS)/Educators	Master's degree
Nurse Clinician	Bachelor's degree
Nursing Allied Health	Diploma in nursing

Recruitment and hiring are ongoing processes to replace the losses from attrition or to meet future demands. However, the hospital entered into a joint venture three years ago with an international partner, and limited to no

recruitment took place during the transition. The annual attrition for the nursing department alone is nearly 130 staff members, who leave for retirement or for personal reasons.

Saudi nursing staff in the hospital consists of 142 RNs and eight AH staff members, represents 13% of the total department staff. Table 2 below lists the current numbers of Saudi and expatriate nurses who function in different roles.

Table 2. Nursing Staff Distribution by Level

Nationality	Leadership	Clinical Nurse Specialist/ Educators	Nurse Clinician	AH Professionals
Saudis	8	7	127	8
Expatriates	44	20	854	112

To date, the organization has hired a total of 43 Saudi nursing staff members, 35 of whom are RNs and eight of whom are AH staff. The majority of the Saudi RNs were hired through a local sponsorship program which began in 1998 and is targeting the high-achieving students from a university located within the same region and will provide them with an internship year in the organization. The sponsorship program started with only four nursing students, who were the first Saudi nursing interns at the organization.

Although a total of 202 nurse interns have been trained to date, only 101 RNs are still working in the organization. Table 3 shows their current location details. The nurse interns who did not apply for employment after internship completion and the ones who transferred to non-nursing jobs within the organization have done so due to poor job satisfaction with their carrier development and with their assigned working units.

Table 3. Current Placement for the Saudi RNs

Current Placement	Total Saudi RNs
Currently working in the nursing department	101
Waiting to be hired after internship completion	12
Did not apply after internship completion	65
Transferred to non-nursing departments within the same organization	17
Transferred to the Mother Company (Finance, Law, HR)	7

Therefore, a primary outcome to be examined is to what extent the support provided by the nurse residency program contributed to these nurses' decision to remain employed at the organization. This project will employ a satisfaction survey to help measure this outcome by utilizing the Nursing Quality Indicator for Nurse Satisfaction (National Database for Nursing Quality Indicators, 2011). Although the Program is intended to bridge the gap between the end of the academic experience and competent clinical practice, this project will also focus on organizationally sensitive outcomes (Kane & Radosevich, 2011), by measuring the retention rate for participants who successfully completed the nurse residency program.

4. Search Process

The aim of this search is to identify the best evidence-based interventions that may improve retention of new graduated Saudi nurses in the organization. The following PICOT question provides the foundation for this capstone project:

P: Saudi New graduate RNs with their Bachelor of Science in Nursing (BSN) degree in first year of practice (new hires).

I: Participation in a 12-month nurse mentorship program upon hire.

C: New graduate RNs with their BSN degree in first year of practice, prior to initiation of a nurse residency program

O: Increased the intention to stay rate of newly-hired RNs

The problem statement resulting from this integrative review is: "Does participation in a mentorship program result in increased the intention-to-stay rate and improve the job satisfaction for the new Saudi nurse graduates in the organization, within their first year of practice?"

4.1 Search Strategy

A comprehensive review of the literature was completed to evaluate the needs of a mentorship program for the new graduate nurse in clinical practice. The search was conducted using multiple databases, including PubMed, CINAHL, and EMBASE. Truncation symbols and database MeSH, Boolean, and Emtree were used to extract the most suitable studies. Using the "OR" term expanded the search to include all records that contain either terms, and the "AND" term narrowed the search results. The primary search terms used were "new nurse" or "graduate nurse" or "new graduate nurse" combined with "mentorship" or "residency program" and "retention," as well as "turnover" or "intention to stay."

4.2 Inclusion and Exclusion Criteria

The search included only English-language studies from the period of 2000 to 2016, and the new graduate nurses'

population was included for all the studies regardless of the age and sex. All levels for staff academic qualifications, clinical settings, and hospital size were included, as well. Non-English studies were excluded.

4.3 Search Outcomes

A total of 190 articles were identified in the search, and their potential relevance was examined. Before eliminating duplicates, the search yielded 55 results through PubMed, 25 results through EMBASE, and 110 results through CINAHL. Six additional articles were identified through manually searching the reference lists. After eliminating duplicates, 75 articles remained. After screening the titles and abstracts, 34 articles remained. Lastly, after the application of inclusion and exclusion criteria, 18 articles remained for final analysis. The majority of the studies were published in the USA except one in Australia. The studies represented a range of different healthcare services, including “not for profit” and “for profit,” university, pediatric, acute care, and rural hospitals.

5. Evidence Level Quality Appraisal

All of the studies included in the final analysis are ranked either as “A” or “B” quality. Moreover, the studies were graded, according to the Johns Hopkins University Research Evidence Appraisal Tool from I to III.

6. Evidence Summary and Synthesis

Upon completion of this comprehensive literature search, three themes emerged from this review: retention rate of the new graduate nurse; impact of a residency program **on job** satisfaction and self-confidence and the effect of nurse residency program participation on patient care outcomes and new nurse’s skills. An in-depth examination of each of these themes is provided in the following discussion:

6.1 Impact on Retention Rates for New Graduate Nurses

Several studies identified a gap between successful academic educational preparation for new graduate nurses, and retention of these novice professionals in their initial professional practice year in the acute care clinical practice environment. Newhouse, Hoffman, Suflita and Hairston (2007), provided retention outcomes for new graduate RNs who participated in a socialization program, versus those new graduate nurses who did not participate. The results of continuous employment for both groups demonstrated that at the 18 and 24 month marks, those new graduate nurses who had participated in a nurse residency program were still employed at the organization, versus the loss of employment for those new graduate nurses who were not involved in a nurse residency program. Williams, Goode, Krsek, Bednash & Lynn (2007) reported a turnover rate of 12% compared with the 35% to 55% turnover rates reported in the literature for new graduates in the first year of employment suggests that the residency program is having a very important effect on retention of new graduates.

Studies by Altier and Krsek (2006); Beecroft, Dorey and Wenton (2007); Beecroft, Kunzman and Krozek (2001); Kowalski and Cross (2010); Dyess and Parker (2012) and Velasquez (2012) analyzed the effect of participation in a nurse residency program for a specific cohort of new graduate nurses and provided an analysis on the resultant retention rates, compared to previous new graduate nurse groups that did not have the benefit of participation in such a program. Their findings suggest that residency programs are vital to the successful retention during the entry to practice year, post-academic experience.

Herdrich and Lindsay (2006) defined the improvement in recruitment and retention rates is often the key measure of any residency program. They found that many applications were received when the residency programs were made public, and positions were filled quickly. In Meriter’s cardiac/critical care residency, the number of applications doubled from the introduction of the first program to the implementation of the second. Meriter’s three cardiac/critical care units have less than a 1% vacancy rate, well below the 14.6% national average found in similar care environments. Anderson, Linden, Allen and Gibbs (2009), Bratt (2009), Setter, Walker, Connelly, Peterman (2011), Block, Claffey, Korow, McCaffrey (2005) and Olson-Stiki, Wendler, and Forbes (2012) reported a significantly high retention rate a year following the introduction of a residency program for the newly hired nurses.

6.2 Impact of a Mentorship Program on Job Satisfaction and Self-Confidence

The concept of job satisfaction is identified as a dynamic challenge in today’s business environment. The long-term success of any workforce, professional nursing in particular, is dependent on employee satisfaction. Altier and Krsek (2006), Block *et al.*, (2005), Cleary *et al.* (2008), Williams *et al.* (2007) and Lens (2011) used different job satisfaction instruments to measure the job satisfaction during different times following the ignition of a residency program. The results showed high scores on the scales that were used.

On the other hand, Anderson *et al.* (2009) reported after the nurse residency sessions and 1 year later, the quantitative findings on the Halfer-Graf survey revealed that the nurse residents significantly perceived that they were able to perform their job, identify resources, understand performance expectations, accomplish work tasks,

and manage the demands of the job effectively. However, Ulrich, Krozek, Early, Ashlock, Africa, and Carman (2010) measured the satisfaction using both work satisfaction and nurse job satisfaction measures. In addition, Ulrich *et al.* (2010) and Beecroft *et al.* (2001) used the Skills Competency Self-Confidence Survey where the self-confidence grew across time.

6.3 The Effect of Nurse Mentorship Program Participation on Patient Care Outcomes and New Nurse's Skills

In the literature review, data demonstrate that patient morbidity and mortality are directly related to a nurse's patient load. Block *et al.* (2005) determined that for every additional surgical patient assigned to a hospital RN, the risk of mortality increased by 7%. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) reports, "Inadequate orientation and training of nurses is a factor in 58% of serious errors." Kowalski and Cross (2010) reported the clinical competency levels of residents, as measured by the Preceptor Evaluation of Resident form, consistently increased at each of the six measurement periods (at 3, 6, 8 weeks and 3, 6, 8 months). The mean of the 3-week evaluation was 78.1 and the mean at 8 months was 111.1 out of a possible 124 points. Other study showed statistically significant differences representing increased skill acquisition within four of the subscales were found (Dyess & Parker, 2012).

Furthermore, Herdrich and Lindsay (2006) stated that critical thinking pretest and posttest measures were improved, as shown by the Critical Thinking Inventory and the Watson–Glaser critical thinking appraisal. For the medical surgical residency program, scores increased from a mean of 135 points to 190 points, representing a 41% improvement at 12 months. For the cardiac/critical care program, Watson–Glaser scores increased by 1.5 points, with most residents improving their critical thinking abilities within the 6-month time frame.

To summarize the literature review results, providing a nurse residency program designed expressively for this purpose is the key element in outcomes related to nurse retention during the initial year of practice. Supporting new graduate nurses as they transition into their new roles as professional nurses is an important component for the new graduate nurse.

7. Limitation and Gaps

The presence of numerous gaps identified in this integrated review may limit the ability to translate the findings. The majority of the studies were from the USA; therefore, the application of results to other countries and healthcare facilities is limited. Further research is required to determine the effects of transitional programs on the turnover rates of graduate nurses internationally.

8. Translating the Evidence into Practice

Nursing staff shortages and the increased demand to hire national nurses are reflected in the current nursing situation in Saudi Arabia. Low retention of newly graduated nurses is a significant shared concern among worldwide hospitals. This integrated review has demonstrated that transition programs assist graduates in their first year of employment, with evaluations demonstrating positive job satisfaction results and increased confidence levels. Positive job satisfaction has been shown to correlate with lower intent to leave the nursing profession (Ulrich *et al.*, 2010), and with the forecasted global shortages of nurses, these programs are vital in keeping new nurses in the workforce. The transition of this evidence into practice within the organization facilities is achievable and will require a structured framework and a committed team. However, to measure the outcome, a TI and job satisfaction tools might be more applicable.

9. The Selected EBP Framework

Any plan to address the poor retention of newly graduated Saudi nurses at the organization will require support from stakeholders within the organization and from the nursing colleges' leaders in Saudi Arabia. Therefore, adapting the Rosswurm and Larrabee (1999) model is the best choice to change the evidence into practice. The Rosswurm and Larrabee model as it shows in Figure 2, guides practitioners through the entire process of changing to an evidence-based practice, beginning with the assessment of the need for the change and ending with the integration of an evidence-based protocol (see Appendix C).

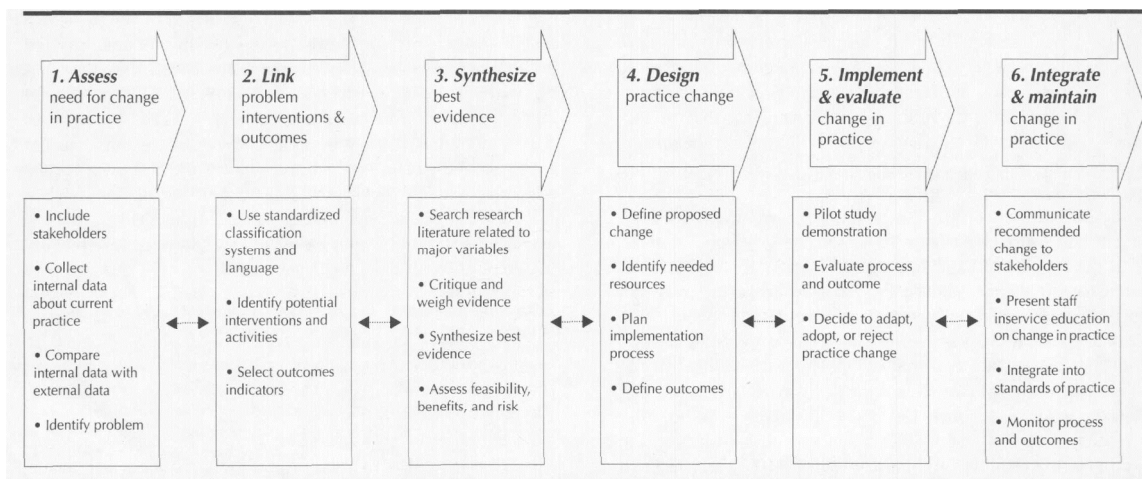


Figure 2. Rosswurm & Larrabee (1999) Evidence-Based Practice Framework

Printed with permission from Rosswurm, M. A., & Larrabee, J. H. (1999). A model for change to evidence-based practice. *The Journal of Nursing Scholarship*, 31(4), 317.

The framework goes through the following six steps:

1. Assess need for change in practice.
2. Link problem with interventions and outcomes.
3. Synthesize best evidence.
4. Design a change in practice.
5. Implementing and evaluating change in practice.
6. Integrate and maintain change in practice.

10. Strengths and Limitations of the Plan

This transition strategy has a number of strengths. First, the organization executive managers have expressed interest in making changes to improve the retention rate for Saudi nurses. Second, the nursing schools within the area are willing to change the practice. Furthermore, this change will improve the nurse interns' satisfaction and intent to stay within nursing.

This strategy also has some limitations. The heavy involvement of a large number of stakeholders may slow the translation process; however, it is necessary to make sure the process of change is carried out with the input of respected stakeholders. Another limitation is the shortage of nurse intern coordinators to implement the changes and to facilitate communication with the nurse interns.

11. Conclusion

Nursing staff shortages and increased demand to hire national nurses are reflected in the current nursing situation in Saudi Arabia. Low retention of new graduated nurses is a significant concern shared among worldwide hospitals. This integrated review has demonstrated that transition programs assist nurse graduates in their first year of employment, with evaluations demonstrating positive job satisfaction results and increased confidence levels. Positive job satisfaction has been shown to correlate with lower intent to leave the nursing profession (Ulrich et al., 2010), and with the forecasted global nursing shortages, these programs are vital in keeping new nurses in the workforce.

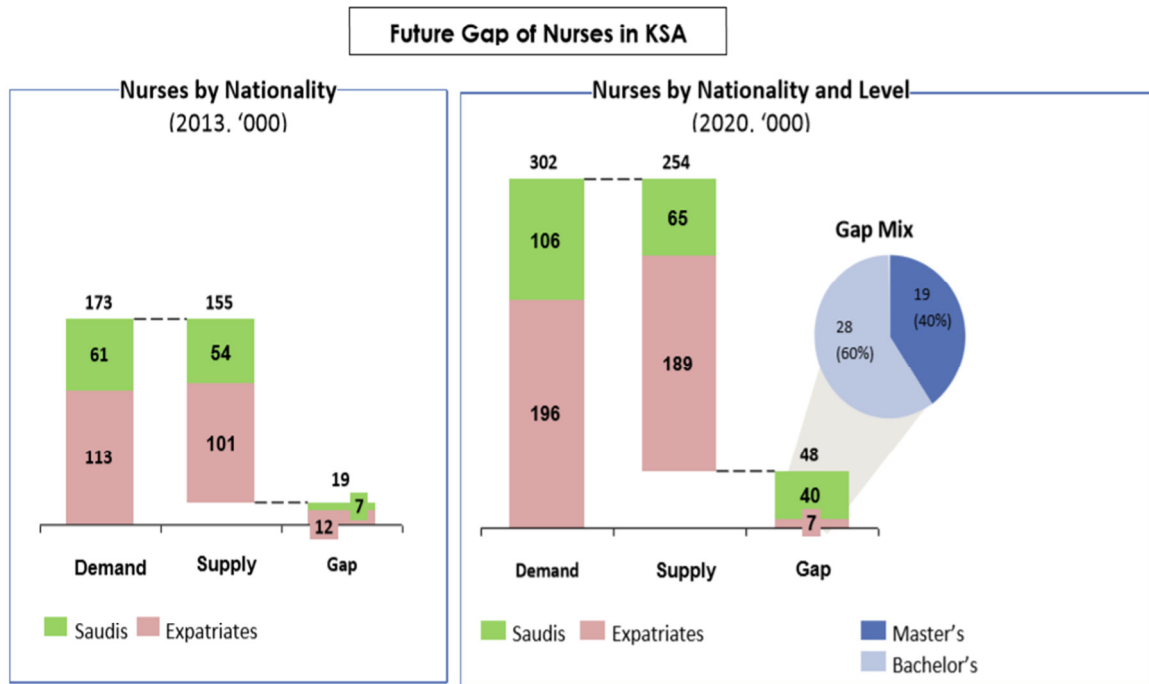
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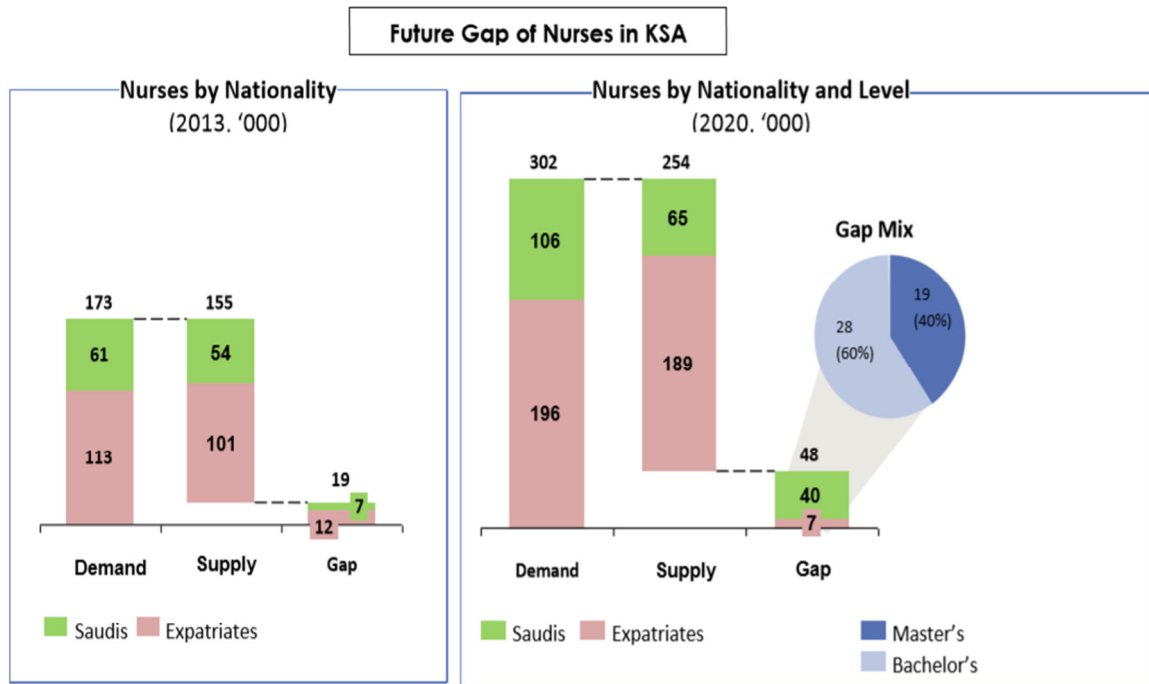
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