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Safe Nurse Rotation: An Efficient Approach to Primary Health Care Nursing

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Abstract Aim: Safe Nursing Rotation (SNR) is an initiative initiated by Nursing Affairs at Eastern Health Cluster to enhance the quality of nursing services provided in Primary Health Care Centers. This study aims to explain the process of implementing SNR and develop practice-related recommendations. **Methods:** This descriptive case study focuses on implementing SNR for 50% of the nursing staff working at four Primary care centers located at different Health Networks within the Eastern Health Cluster, Saudi Arabia**. Data Collection &Analysis:** The nursing rotations were piloted in the following services: vaccination clinic, chronic disease clinic, and treatment clinic. **Findings:** 49 Nurses participated in the rotations. The rotations were successfully implemented with the support of nursing management. **Conclusion:** Safe Nurse Rotation is an effective solution to enhance staff competence, skills, and satisfaction, which positively influences the nursing services provided**.** It highlighted opportunities for managerial support of efficient nursing staff utilization.

Keywords: *Nursing Rotation, staffing, Primary care, and staff competence*

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1. Introduction

The Saudi Primary Health Care Services organize care provision through National Health Programs targeting communities. Reflecting on population needs, these programs provide service pathways that target enhancing population health and wellbeing. The Health Vision in Saudi Arabia is derived from the Saudi Vision 2030 questing transforming care delivery to become human-centered. This human-centered care approach aims at enhancing health service quality, advancing client and employee satisfaction, and maintaining environmental safety.

Primary Health Care adopts Care Transformation through Care Management. Care Management guides services through the Model of Care (MoC) as a map for care delivery. Accordingly, Team-Based Care (TBC) is one of the MoC initiatives that aims for a person to get continuous, comprehensive, safe, efficient, and high-quality care by the designated health team members. The TBC model of practice requires a nurse to competently provide all primary health care services to the various target populations. Safety in practice follows the International Safety Goals (IPSG) [1].

At the Eastern Health Cluster (EHC), Nursing Affairs as Primary Health Care Nursing Operations and Professional Development support nurses to embrace change in healthcare services through adopting a new culture of practice enhancing TBC Model delivery and IPSG.

Safe Nurse rotation was developed to connect the current practice with the TBC and IPSG requirements. Nurses' assignments were organized according to national programs. These assignments challenged the continuity of nursing service delivery in the absence of designed nurses leading to service delays and/or potential rescheduling causing frustration and presenting safety and satisfaction challenges.

The current situation sheds light on the inequitable distribution of responsibilities among nurses in PHCs leading to shortage. A nurse would often work in one or two national programs or services. This inequitable distribution is a systematic problem resulting from limiting each nurse to a certain number of service pathways. Safe Nurse Rotation was developed as a solution to overcome the inequitable distribution of nursing responsibilities.

Commonly, a limited number of trained nurses often deliver certain services such as vaccination, chronic disease care, and treatment rooms. This resulted in limiting nurses to the same responsibilities for extended periods, reducing their input in other clinics and activities. A nurses' role was mainly reduced to triage, clinical practice settings, and task-oriented missions [2].

The new model of nursing practice requires that nurses adopt a variety of roles. These new roles require training and empowerment. The more the nurses are well-prepared and trained in different areas, the better the patient satisfaction and nursing well-being [3]. Moreover, competence reflects on nurses' attitudes and communication with team members and their ability to multitask [4]. This role enhancement will improve nurse's autonomy, satisfaction, and accordingly, team harmony.

Nurses understand the vitality of multitasking [5]. Multitasking creates a positive working environment supporting interactions between both patients and healthcare providers. Harmony between team members is important for insightful decisions, improving health outcomes, and patient experience while limiting errors [6,7].

The Safe Nurse Rotation (SNR) initiative was developed in PHCs to bridge gaps between TBC requirements, the traditional nursing process, and the current shortage of functional nurses. It was designed as a flexible tool for preparing competent nurses to deliver care within all PHC services. It increases nursing productivity and enhances care delivery through multitasking. When nurses can deliver care in all pathways, the shortage is reduced. Moreover, SNR highlights nurses' input, acknowledging efforts and skills.

The Primary Health Care Nurse works with the medical team in serving beneficiaries in assessing vital signs, organizing entry to the team clinic, reviewing the needed health services, and providing healthcare interventions to the team's target population to reach desired health outcomes. The team follows people with chronic diseases, pregnant women, and children's development through assessments and tests and provides preventive measures. Increasing the number of competent nurses through SNR supports the TBC model of practice and ensures the maintenance of the desired health outcomes.

Haung (2016) explains a rotation process as "the transfer of nursing personnel among hospital departments with different functions or different units/branches of the same hospital department without promotion or salary adjustment." This rotation provides nurses with insight to tactile the need to acquire more knowledge and skills, share their experiences with their colleagues, and become self-motivated to improve their practice which impacts the quality of care and satisfaction [8].

A study conducted to assess the influence of nurse rotation on patient satisfaction and job commitment in Greece, more than 50% of nurses involved in the study expressed that job rotation is a vital practicing method. On the other hand, most of them agreed that they gained more knowledge and clinical experience from the rotations. Managers' decisions regarding rotating nurses in different settings affect the care outcome. They are responsible for enhancing nurses' capabilities and orchestrating professional development to create enthusiasm among nurses and elevate satisfaction [9]. Rotation is recommended to manage burnout and enhance nurses' career engagement considering the high nursing demand in every healthcare organization [10]. Rotation promoted nurse's clinical judgment and practice in primary healthcare centers [11]. This approach is associated with stress and lower productivity compared to the team-based method. Cooperation and communication create a positive working environment that will improve a nurse's well-being and patient satisfaction [12].

Furthermore, SNR provides an opportunity to strengthen leadership and operation skills within the team [5]. In all sets, multidisciplinary care always results in high-quality care that impacts the patients' experience [7].

Planning rotations ought to be carefully crafted in order not to affect the quality of services provided and at the same time respond to staff needs [3]. Thus, implementing SNR requires multi-level preparation, training, and communication to create a positive working environment that will improve a nurse's well-being and patient satisfaction [12]. It also ought to be carefully planned to prevent chaos [3].

The Process of Safe Nurse Rotation includes supporting the development of local training plans for nurses' rotation on services to ensure their ability to provide safe services. It is essential to recognize the need to acknowledge skills and strengths to enable leadership skills and enhance judgment and conduct within the team [5]. Furthermore, it requires standardizing competency assessment tools/ methods. SNR initial objective focused on preparing 50% of nurses in chosen PHCs and rotating them on the three main services PHCs: vaccination, Treatment Room, and Chronic Care clinics.

The aim of the study is to illustrate the effect of implementing SNR on nursing staff working at Primary Health care centers. As well as developing recommendations and implementation strategies based on the study findings.

2. Methodology

Study Design and Settings

This project is a descriptive case study design providing an overview of the implementation of Safe Nurse Rotation and its outcomes.

Sample/Participants

The pilot study involved four Primary Care Centers located in the Eastern Region of Saudi Arabia under the Eastern Health Cluster, EHC. The total number of nurses in those PHCs is 49. These Healthcare Centers were chosen from different networks within EHC. The selected PHCs were chosen by the network nursing leaders. Upon the selection, the daily number of visitors and the number of nurses were similar in all participating centers to minimize the variation among the variables.

The four health networks were: the Khobar Health Network (KHN), Dammam Health Network (DHN), Qatif Health Network (QHN), and Rural Health Network (RHN). From the chosen Primary Health Care Centers, 50% of the total nursing staff number that underwent SNR were included in the study. The nursing rotations were piloted in the following three services: vaccination clinic, chronic disease clinic, and treatment clinic. The SNR team introduced the concept of the initiative and provided all required support and orientation to the nursing leadership of the health networks.

The nurse managers of those selected PHCs were asked to select the nurses to participate in SNR. The nurse manager planed their participation in SNR. The selected nurses then received sufficient training in each service

followed by a competency assessment by each service supervisor to ensure safe practice by nurses for patients as rotation started. The rotations must be conducted in the three services. During the implementation of the SNR, the nursing leadership team ensured smooth and safe SNR implementation through continuous close monitoring visits.

Data Analysis /Findings

49 PHC nurses participated from the four selected PHCs for SNR implementation as shown in (table1). Rotated nurses have reached the initiative target of 50 % on average in the determined services.

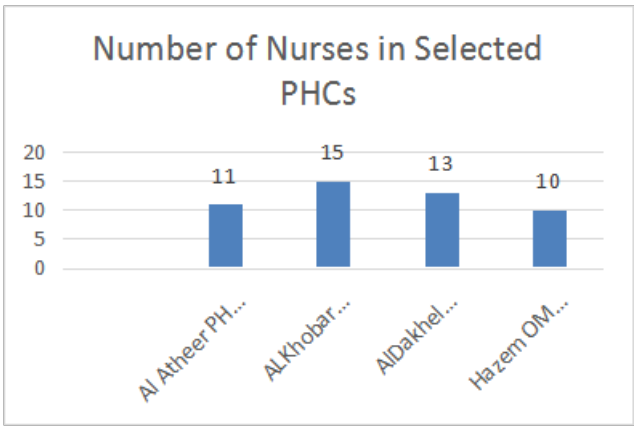

Figure 1. Number of Nurses in each PHC

Hazem Omalsahek from the rural Health network exceeded the percentage SNR target of 50% of the nurses to be rotated and achieved 60%. Followed by Alatheer PHC from DHN with 51.33% as average. The vaccination service was the highest rotated area with 60% of staff in both QHN and RHN PHCs. While in the treatment clinic, all PHCs relatively achieved the target of 53% and above.

Table 1. Percentage of the rotated nurses in PHC in each service

Percentage of rotated nurses in each service	Alatheer PHC/DHN	Alkhobar Aljanobi PHC/KHN	Aldhakhel mahdood PHC/QHN	Hazem omalsahek PHC/RHN
Vaccination	54%	60%	46%	60%
Chronic Disease Care	45.45%	26.6%	46%	60%
Treatment Room	54.54%	53.3%	54%	60%
Average	51.33%	46.6%	48.66%	60%

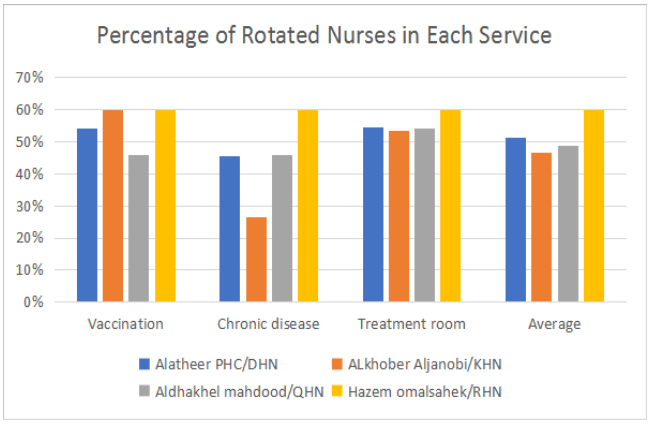

Figure 2. Percentage of rotated nurses in each service

3. Discussion

The study findings displayed that Safe Nurse Rotation initiative was successfully implemented in all four primary healthcare centers during the pilot phase.

All participating nurses had the opportunity to be trained and oriented to the newly assigned roles and succeeded in delivering high-quality care as explained by Haung's (2016) definition of Nurse Rotations. The nurses were trained and rotated to deliver the variety of services provided within the same PHC. In some Networks, Clinical Nurse Educators (CNEs), were involved in assessing competence for participating nurses.

The target of SNR was to rotate 50% of the selected PHC nurses on the three services of Vaccination, Chronic Care, and Treatment Room. These targets were identified to explore applying SNR with tolerable effects on workflow. Moreover, the implementation was carefully planned to concentrate on safety, competency, staff and beneficiary satisfaction as a study explained that careful planning in rotating nurses Is important to avoid the risk of chaos [3].

The vaccination service was the highest in both Alkhobar Aljanoubi and Hazim Omalsahek (60%). The nature of the vaccination services requires extensive training, thus, nursing leaders make sure that competent nurses are available on duty to provide the vaccination service. The higher numbers reflect previous experience with vaccine service among nursing staff prior to SNR. Vaccine nurses are entitled to receive Infection Allowance.

Vaccination is more complex than other services because most of its target population is little children of two years and younger. Moreover, the service is frequently updated, and the variations and changes in the used products and method of use. The Vaccination Training Program is a prolonged national program that is provided by Preventive Medicine Departments in health networks. This program consists of tasks and responsibilities that go beyond clinical practice to prepare safe competent nurses to work in PHC vaccination clinics.

Chronic services had the least progress in Alkhobar Aljanoubi (26.6%). This was because, in Alkhobar Health Network, the role of the Chronic Care nurse was divided between the vital signs nurse and the physician. It was also lower than the target in Alatheeer (45.45%) and Aldakhel Almahdood (46%). This can be attributed to the fact that the chronic care nurse role is not well defined and that the line between what is a nurse's responsibility and what is a physician's is not clear-cut. Nurses can cover the chronic service by only measuring vital signs, which might be the case in these centers. Providing clear job descriptions will clarify the nurse's role in chronic care and reduce conflict.

The Treatment Room services were above target in all participating PHCs. This can be attributed to the nature of the required essential nursing procedures; all nurses must be competent to perform this procedure to cover the service. Furthermore, the treatment room service covers cases of urgent cases that hospital emergency rooms would not receive. This requires all PHC nurses to be competent to cover the treatment room service.

4. Limitations

- Several challenges were encountered during the implementation of the SNR including reduction in staff number due to vacations, assignments in different PHCs, sick leaves, health conditions and the resistance to change roles.
- The high patient load in certain services delayed rotations.
- The limited number of CNEs contributed to delayed PHC nurse competence assessment where they were involved in the competency assessment.
- The Infection Allowance that is provided only to vaccine clinic nurses is inequitable for others who rotate in vaccine clinics.

Recommendations and Implications for Practice:

Based on our findings, the following recommendations are suggested to enhance SNR implementation by:

- Including SNR in the Health Network Nursing Strategic Plan.
- Involving all nurses in each PHCs in the yearly plan of Nursing Rotation considering the type of service and patient safety.
- Monitoring rotations and training through KPIs.
- Maintaining a continuous Yearly Nursing Training Course Schedule for all health programs and pathways provided within the PHCs especially Vaccination, Treatment Room, and Chronic Disease clinic.
- Increasing the number of targeted nurses for all the training courses.
- Enhancing the roles of MOC Leaders in supervising, training and evaluating SNR outputs.
- Increasing the number of CNEs in each PHC to facilitate the on-job nursing training supervision and evaluation.
- Expanding the SNR Initiative pilot to include more services and PHCs.

Conclusion

Safe Nurse Rotation was established to align existing practices with TBC standards. It provided nurses with advanced training and competence in all Primary Health Care National Programs. The SNR rectified the delayed services due to shortage in nursing staff and provided nurses with skills that enhanced their confidence and facilitated multitasking within the nursing scope in primary health care. Hence, a High-quality and safe care was provided to patients in a timely manner. In one of the involved PHCs, the target of 50% was exceeded reaching to meeting 60% while the other PHCs have also reached above target. The outcomes were ideal to launch the second phase of the initiative that will include more PHCs within the cluster.

Ethical Considerations

Participation was voluntary. Privacy and confidentiality of data was protected. Institutional Review board approval was taken prior to conducting of the study.

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