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## Review Article

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## Patient Ratios across the Globe: A Literature Review

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## Abstract

**Background:** Hospitalized patients are becoming increasingly complex. Their care often takes increased man hours to provide safe, competent, and required treatments. The patient to nurse ratio is needed to provide that care, and to increase job satisfaction, nursing retention, and to provide positive patient outcomes. This issue is not only in the United States but is being felt across the globe. Health care organizations are struggling to provide quality of care for patients when their workload is overwhelming. Patient to nurse ratio does save lives.

**Design:** A mini-Rapid Review

**Methods:** PubMed, Google Scholar, CINAHL, EBSCO and manual search of references from evaluated studies were used using the following search terms “patient ratio” AND “patient ratio and nursing”, “quality of care with patient ratio”, “safe care”, “United States and patient to nurse ratio”, or “patient ratio worldwide”. Articles published in English between 2019 and 2024 were included. Randomized controlled trials, retrospective cohort studies, prospective cohort studies, journals, and quality improvement projects that assessed the issue of patient to nurse ratios. Assessed the studies for selection, risk of bias, and extraction of data. Publications were eliminated based on the following exclusion criteria: the research utilized small sample sizes or new data was available, or the peer review process was limited.

**Results:** 74 non-duplicated articles were initially reviewed. After initial review of the title and abstract, 40 articles were excluded. From the remaining 34 articles, eight articles were excluded after full-text screen, 10 articles were excluded during the data extraction. The 15 remaining articles were included in this literature rapid review.

**Conclusion:** Currently there are no federal mandates regulating the number of patients a registered nurse can provide care to during the shift. Lack of mandates leads to comprised care and poor patient outcomes. In the United States, some States have recommended mandates. New York State passed the Senate Bill S1168A which requires health care organizations to adhere to average nurse to patient ratios that are created by specialty units. The debate continues in the United States and Internationally.

**Keywords:** Faculty; Global nursing; Nursing; Nursing care; Patient ratio; Patient outcomes; Quality care



Hospitals have policies and procedures that they follow to promote positive patient outcomes. The nurse-to-patient ratio is defined by the number of patients a registered nurse cares for during a shift. Health care organizations have guidelines to ensure safe staffing ratios. However, with staffing shortages this has been a challenge. Health care organizations are encouraged to carry out safe staffing ratios as they are directly linked to better patient outcomes. When registered nurses have extra patients added to their workload during their shift the risk for hospital-acquired problems increases [1]. Incidents such as falls, medication errors, pressure injuries, hospital acquired infections are examples of what can occur when the patient to nurse ratio is overwhelming.



### **Theoretical Perspective**

The Health Promotion Model (HPM) focuses on explaining health-promoting behaviors, using a wellness orientation [2]. Health promotion includes activities directed toward developing resources that maintain or enhance a person's well-being. The model includes several theoretical proposals that can be utilized to create interventions and understanding of health behaviors. The model also incorporates interpersonal and situational influence on a person's commitment to health promoting actions (Polit, D. F., & Beck, C.T. 2020). Registered Nurses can utilize the HPM to improve the well-being of their patients and for themselves. Having a safe patient to nurse ratio will assist and guide them to promote increased safe and competent care. This rapid review was guided by Nola Penders Health Promotion Model to examine the patient to nurse ratio.

### **Literature Review**

PubMed, Google Scholar, CINAHL, EBSCO and manual search of references from evaluated studies were used using the following search terms "patient ratio" AND "patient ratio and nursing", "quality of care with patient ratio", "safe care", "United States and patient to nurse ratio", or "patient ratio worldwide". Articles published in English between 2019 and 2024 were included. Randomized controlled trials, retrospective cohort studies, prospective cohort studies, journals, and quality improvement projects that assessed the issue of patient to nurse ratios.

The 5-year limit was used to ensure current evidence-based literature is reviewed and summarized.

### **Overview**

It has been determined that patient to nurse ratio is needed. We are facing and challenged by the nursing shortage, which is made more difficult due to the decrease of nursing faculty and fewer nursing seats in nursing programs. There are 29 million nurses worldwide, with 3.9 million in the United States [3]. It is predicated that in the United States along the Registered Nurse workforce will increase by 7%. The other factor influencing safe patient to nurse ratio is in the last few years around 60,000 nurses have left the workforce each year. The other factor includes retirement. In 2018, 55% of nurses working in the United States are older than age 50 [3], and it has been estimated in the next 10-15 years 1 million registered nurses will be eligible for retirement. The literature indicated that there are many contributing factors.

### **Nursing Faculty**

Nursing faculty are distinctive professionals, as they are educating our future nurses to provide competent, safe care, and positive patient outcomes. The nursing faculty shortage has impacted current and future nursing workforce needs and health outcome [4]. The average age of nursing faculty is between 48.6- and 62.5-year-old, depending on their job title and degree level. It has been reported that one-third of nursing faculty who teach in Bachelor of Science or Master of science nursing programs are planning to retire by 2025. That leaves universities with limited time to prepare and plan. Nursing programs cannot faculty with the right specialty, cannot offer competitive salaries compared to clinical positions, and finding doctorally prepared faculty is a challenge [5]. The nurse faculty shortage has impacted current and future nursing workforce needs and health outcomes. An unexpected finding was a deterioration in the workplace climate (campus) and its untoward effects on meeting the needs of faculty. Burnout has been reported in nursing faculty. They are faced with increasing workloads, lack of resources, academia pay disparities and lack of respect. Bullying and incidents of incivility are accruing in academia that often leads to moral and physical distress, and leads to burnout and turnover [6].

## Nurses and Burnout

Nurse burnout is an occupational hazard affecting nurses, patients, organizations, and society at large [7]. Nurse burnout is associated with increased safety issues such as fall, medication errors, and poor patient outcomes. Nursing burnout is aligned with being overworked and having too many patients. When a registered nurse has so many patients on a shift, they are unable to deliver all the required care or effectively perform patient education such as health promotion. Poor nurse to patient ratio has been associated with increased preventable deaths, readmission rates, hospital acquired infections and decreased quality of care [8]. Nurses are often pushed to exhaustion and are battling an unprecedented wave of burnout. Nurses need to reach out to their Congress representatives to push the Bill of H.R. 2530 (Nursing Staffing Standards for Hospital Patient Safety & Quality Care of 2023) to decreased burnout and to increase safe care for the patient such as patient to nurse ratio [9].

## Patient Ratio

There are numerous articles on how nurse to patient staffing impacts safe, competent, and positive patient outcomes. Health care organizations across the globe have procedures and protocols for deciding how many patients a nurse can care for per their shift. There are factors that should be taken into consideration for an assignment that includes patient health status, acute vs chronic, patient location on the unit, and experience of the registered nurse. Numerous states, including New York, have passed, or are working on legislation to require hospitals to disclose their staffing ratios and or mandate staffing ratios that health care organizations must follow. In New York State, hospitals are required to provide on-call coverage for all registered nurses, and they must disclose their staffing ratios to the public via their websites. This Bill S1168A requires hospitals to adhere to average nurse to patient ratios that are established by specialty [1]. It is estimated that if these hospitals were staffed at 4:1 P/N proposed in the *Safe Staffing for Quality Care Act*, 4370 lives would be saved and \$720 million saved in shorter lengths of stay and avoided readmissions. Other states are proposing similar regulations and or have mandated such as California.

## Global Impact

The nursing shortage has impacted all countries, in all areas of the globe. The World Health Organization (WHO) characterizes current gaps in the health and care workforce in Europe as a ‘ticking time bomb’ that could lead to worsening health outcomes and, in extreme cases, system collapse [10]. Although countries in Western and Northern Europe are generally faring better than the rest of the region, they are still struggling with nurse shortages. Studies are limited, however one study showed in Ireland, 85% of nurses and midwives surveyed by the Irish Nurses and Midwives Organization in early 2023 stated that existing staffing levels do not meet required clinical and patient demand [11]. The EU has clear directives on the training and recognition of nurses and care workers, but it has not published guidelines on recommended nurse-to-patient ratios and each member State is free to follow its own [12]. A few studies show that Scotland has mandated safe nurse to patient ratio. Currently the Royal College of Nursing is considering models from around the world. Africa has the same concerns, a study found that participants alleged that due to increased workloads, they are overworked and do not have sufficient staff to care for patients. Africa in 2020 had an estimated 39% of the 4 million nurses and midwives needed. Under the current trajectory, there could be a shortage of 3 million nurses and midwives by 2030 if no urgent investments are made [13]. No mandated nurse to patient ratio. In 2016, Queensland (Australia) implemented minimum nurse-to-patient ratios in selected hospitals. The minimum nurse-to-patient ratio for a morning and afternoon shift is 1:4 and changes to 1:7 for night shift in acute medical and surgical wards in selected facilities. South Korea law does have mandates however a few studies have demonstrated that the nursing shortage has impacted the required nurse to patient ratio [14].

## Conclusion

Nurse leaders along with nurse educators have been speaking about the nursing shortage since the late 2000’s. This issue is not going to be resolved or improved without collaboration from other stakeholders. There are factors that need to be reviewed and improved such as preparedness of the graduate nurse, orientation of the novice nurse, unhealthy work environments, and how to retain the experienced nurse that will mentor the novice nurse which leads to retention and patient satisfaction. The other consideration is lack of paraprofessionals, such as personal care aides or even phlebotomists. There are studies that show that registered nurses spend more time performing indirect care than direct patient care such as patient education. By having adequate staffing, RNs could delegate 17.7% of their indirect patient care tasks to other health care members and this could improve patient safety [15].

## References

1. Davidson A (2023) Nurse to Patient Staffing Ratio Laws and Regulations by State *Nurse Journal* 5: 2.
2. Office of the Chief Nursing and Midwifery Officer (2019) Nurse-to-patient ratios- Question and Answers. Queensland Health.
3. Trusted Nurse Staffing (2024) 2024 Nursing Ratios: Which State Have Nurse -Patient ratios and why they’re important. Trusted Nurse Staffing.
4. Jarosinski J, Sedomridge L, Reid T, et al. (2022) Nurse Faculty Shortage: Voices of Nursing Program Administrators. *Nurse Educator* 47: 3 1-11.
5. Munday R (2023) The States with the Largest Nursing Faculty Shortage. *Nurse Journal* 2: 1-10.
6. Olson L (2021) Envisioning an Ethical Climate in Nursing Education Programs. *OJIN: The Online Journal of Issues in Nursing* 26: 22-24.

7. Jun J, Ojemeni M, Kalamani R, et al. (2021) Relationship between nurse burnout, patient and organizational outcomes. *International Journal of Nursing Studies* 119: 1-5.
8. Perkins A (2021) Nursing Shortage; Consequences and Solutions. *Nursing Made Incredibly Easy* 19.
9. Sites J (2023) Nurses call for changes to address burnout, safety, staffing shortages *Medical Economics* 4: 22-25.
10. World Health Organization (2022) Ticking timebomb: Without immediate action, health and care workforce gaps in the European Region could spell disaster.
11. Mitchell G (2023) Unsafe Staffing: RCN to campaign for nurse to patient ratio. *Nursing Times*.
12. Borg M (2023) Fact-Check: What are international nurses to patient ratio recommendations.
13. ND (2023) Analytical Fact Sheet. Africa.
14. Hong KJ, Chung H, Jo YM (2023) Relationships between Alternative Nurse Staffing Level Measurements and Nurses' Perceptions of Nurse Staffing Level Adequacy, Fatigue, and Care Quality. *Journal of Nursing Management* 1-12.
15. Perpetua Z, Lennon J, Shovel J, et al. (2023) A Current State Assessment on Nursing Work Activities. *Journal of Nursing Care Quality* 38: 381-387.