# NURSE-PATIENT RATIOS: HOW IT'S AFFECTING THE QUALITY OF CARE

# Introduction

As the population continues to grow so does the need for people to access health-care. The New Zealand statistics showed that over 1.1 million discharges were reported for publically funded hospitals in 2014/15 (Ministry of Health NZ, 2017). This means the number of beds on the wards become full, nurses must then take on higher patient loads. Having more patients to care for can make it difficult to time manage as some patients may require more attention than others, so patient cares and medications can become delayed or even missed. This lead me to the literature review to evaluate the evidence around this issue and find out how the impact of nurses taking on more patients has on their cares, plus a further look at the effects it has on the patients and nurses' health.

Research question: "Does a high patient load for nurses working in an acute hospital setting on medical/surgical wards, affect the quality of care given to patients?"

# Literature Review

The literature review provided evidence that nurses taking on a higher patient load shows:

- Patients' daily cares (along with vital signs) can be critical as any patient in hospital can deteriorate. Having less time to spend with patients and provide proper cares means they won't recover as fast and will spend a longer time in hospital. Excessive workload or staffing ratios are associated with increased mortality (Lee et al., 2017). Even as much as a nurse taking on two more patients increases the chance of mortality by 14% (Aiken et al., 2002).
- **Nurses** are becoming stressed and run-down taking on a heavier workload. This can lead the nurse to not being able to perform efficiently and effectively because their physical and cognitive resources are reduced; this suboptimal performance then may go onto affect patient care and safety (Carayon & Gürses, 2005).

# Recommendations

- 1. Having a part time nurse to work 4 hours over the busy part of morning and afternoon shift. They can help nurses who may be struggling to keep up with their patient load or missing any patient cares. This can also help for when nurses need a break, the extra nurse can take over patients while the nurse takes a break to refresh and have some personal time for themselves.
- 2. Having a proper work system design that can help with the nurse's work load to make it easier and better for patient safety. Factors that can influence higher workloads include: places to sit down to do patient notes, distance between patients' rooms, misplaced equipment, and patients' charts. These factors are easily preventable by having an organized system for the ward. E.g. Allocating patients to the nurse in the same room.



# **Implications**

Through the literature review, the evidence expresses that nurses taking on a higher patient load can impact patients health but also increase their chance of mortality while in hospital. A higher patient load means a heavier workload for nurses, which has a significant impact on nurses health. Increased workload adds stress and strain to the nurse which can affect performance, therefore, putting patients health at risk.

# Conclusion

With these recommendations, together they can help prevent these negative outcomes evidenced and save time for nurses so that it can be focused on the patients and their care.

#### References:

A Nurse Reflects On The Privilege Of Caring For Dying Patients. (2015). [Image]. Retrieved from https://www.npr.org/sections/health-shots/2015/09/28/443468965/a-nurse-reflects-on-the-privilege-of-caring-for-dying-patients

Aiken, L., Clarke, S., Sloane, D., Sochalski, J., & Silber, J. (2002). Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction. JAMA, 288(16), 1987-1993. doi: 10.1001/jama.288.16.1987

Carayon, P., & Gürses, A. (2005). A human factors engineering conceptual framework of nursing workload and patient safety in intensive care units. Intensive And Critical Care Nursing, 21(5), 284-301. http://dx.doi.org/10.1016/j.iccn.2004.12.003

Lee, A., Cheung, Y., Joynt, G., Leung, C., Wong, W., & Gomersall, C. (2017). Are high nurse workload/staffing ratios associated with decreased survival in critically ill patients? A cohort study. Annals Of Intensive Care, 7(1). doi: 10.1186/s13613-017-0269-2

Ministry of Health NZ. (2017). Retrieved from https://www.health.govt.nz/publication/publicly-funded-hospital-discharges-1-july-2014-30-june-2015

## PECOT MODEL

PECOT category	Information relating to question	Explanation
Population	Nurses working in an acute hospital setting on medical/surgical wards. Patients receiving the nursing care.	Medical/surgical wards are where nurses are found to take on high number of patients to care for, due to the result of having a greater number of beds for patients.  The patients are the ones who are receiving the quality care from the nurses.
Exposure (intervention)	Nurses with a high patient load	We will be looking for articles that have used different research designs in which nurses with high patient patient load and the quality of care given. We will also find articles that study the effect of having high patients loads it has on nurses.
Comparison / Control	Nurses with lower patient load.	We are interested in seeing the quality of care given with nurses who have lower patient loads. Then exploring what affect this has for nurses.
Outcome	To find out if the quality of care given to patients decreases with nurses who have higher patient loads in an acute hospital setting on a medical/surgical ward.	We want to know if the nurses who have a higher patient load are unable to give the appropriate standard of quality care to their patients than a nurse with a lower patient load. And how this can have a negative effect on patients and nurses.
Time	N/A	N/A

This PECOT model helped in the development of my research question "Does a high patient load for nurses working in an acute hospital setting on medical/surgical wards, affect the quality of care given to patients?"

## Rationale/Summary

I chose to present my information about the effects that high patient loads have on nurses through a poster, as it allows me to display this information in a concise overview to a number of individuals who can view the poster and read the information provided at their own pace. (Ilic & Rowe, 2013). Using this form of presentation interested me as I am more of a visual learner and posters help summarise the written research attractively to engage viewers' attention helping to publicise and generate discussion. (Poster Basics, 2018). Presenting this poster with a formal speech makes it interactive to viewers as they may have ideas of how to apply or extend this information out to more of the nursing community, providing feedback of the presentation by raising new questions or suggesting different contrasts that can improve the poster increasing the knowledge to both viewer and myself (Miller, 2007). Posters are a cost-effective way to share information and I hope that using this format I will be able to display this on all wards in the hospitals so that not just nurses can read this but all staff who are involved in patients cares. (Miracle, 2003).

#### Reference:

Ilic, D., & Rowe, N. (2013). What is the evidence that poster presentations are effective in promoting knowledge transfer? A state of the art review. *Health Information & Libraries Journal*, 30(1), 4-12. doi: 10.1111/hir.12015

Miller, J. (2007). Preparing and Presenting Effective Research Posters. *Health Services Research*, 42(1p1), 311-328. doi: 10.1111/j.1475-6773.2006.00588.x

Miracle, V. (2003). Effective Poster Presentations. Dimensions Of Critical Care Nursing, 27(3), 122-124.

Poster Basics. (2018). Retrieved from https://guides.nyu.edu/posters