# MEDICATION ERRORS AMONG INEXPERIENCED NURSES

## **Introduction To Practice Issue:**

Medication errors are an ongoing global issue for health care providers and for those accessing health care. For the year 2012, medication errors were identified as the third leading cause of death or injury in New Zealand Stephenson, 2012). Given this, there is much discussion in the literature around the prevention of medication errors by nurses, as they play a crucial role in the administration of medications. Inexperienced nurses, such as student and new graduate nurses have been identified as a high risk group of making medication errors, therefore they were my target group for this research (Saintsing, Gibson, and Pennington, 2011).

The process of medication administration is multifaceted and includes a number of stages: prescribing, transcribing, dispensing, administering and monitoring (Harding and Petrick, 2008). Medication errors can occur at any point in this process and can be defined as 'a failure in the treatment process that leads to, or has the potential to lead to, harm to the patient' (Aronson, 2009).

"What are the factors contributing to the making of medication errors in student nurses and new graduate nurses that have less than two years clinical experience?"

## Factors contributing to making drug errors:

### **System Issues:**

- Difficulty applying pharmacological principles mechanism of action of drugs and drug clearance in practice (Lim and Honey, 2014)
- Policy and medication knowledge deficits
  (Simonsen, Daehlin, Johansson and Farup, 2014).

### **Professional Issues:**

- Lack of confidence and potential feelings of inadequacy related to practice (Harding and Petrick, 2008).
- Underdeveloped critical thinking skills—affiliations between clinical experience and insufficient time management regarding clinical decision making (Saintsing, Gibson, and Pennington, 2011).
- Inability to recognise factors contributing to medication errors (Saintsing et al, 2011).

### **Implications on practice:**

Best-evidence literature has established the reasons that inexperienced nurses make medication errors is due to an interplay of systematic and professional factors. Despite this, a significant number of errors go unreported and the number of reported near-misses are almost inexistent in New Zealand (Harding and Petrick, 2008).

The complex context of which nurse's carry out medication management can impact on the quality of care received by the patient. Although, the vast majority of medications errors do not result in patient harm, those that do, are costly for the health system and can significantly effect patient quality of life (Lim and Honey, 2014).

### **Recommendations:**

- Greater emphasis on pharmacological principles: mechanism of action and drug clearance, in bachelor of nursing programmes and continuation of learning through nurse education sessions (Harding and Petrick, 2008).
- Be up to date with protocols, research and information regarding relevant medications and medication errors (Lim and Honey, 2014).
- Include commonly used drugs and additional education for new drugs to that setting during nurse orientations (Harding and Petrick, 2008).
- Improve the medication error/near-miss reporting culture to further research factors contributing to medication errors (Harding and Petrick, 2008).
- Increase awareness of factors contributing to medication errors (Saintsing et al., 2011).

### References:

- Aronson, K. J. (2009). Medication errors: definitions and classification. *British Journal of Clinical Pharmacy*, 601.
- Harding, L., & Petrick, T. (2008, January). Nursing Student Medication Errors: A Retrospective Review. *Journal of Nursing Education*, 47(1), 43-47.
- Lim, G. A., & Honey, M. (2014). New Zealand Newly Graduated Nurses Medication Management: Results of a Survey. Nurse Education in Practice, 660-664
- Pills black and white [Photograph]. (2011). Retrieved May 12, 2016, from https://nz.pinterest.com/nachtsonn3/pills/
- Saintsing, D., Gibson, M. L., & Pennington, W. A. (2011). The Novice Nurse and Clinical Decision-Making: How to Avoid Errors. *Journal of Nursing Man*agement, 354-359.
- Simonsen, O. B., Daehlin, K. G., Johansson, I., & Farup, G. P. (2014). Differences in medication knowledge and risk of errors between graduating nursing students and working registered nurses: comparitive study. *BMC Health Ser*vices Research, 1-11.
- Stephenson, K. (2012, November 21). *Medication errors down in DHBs*. Retrieved from PharmacyToday.co.nz: http://www.pharmacytoday.co.nz/

Created by Emily Barclay

#### **Pecot Model:**

PECOT category:	Info relating to Q:	Explanation:
Population:	Student and new graduate nurses of	People of all age groups can
	all ages who are working in a	study nursing, my focus is on
	clinical setting	student nurses and new
		graduate nurses as they are
		more at risk of making errors
Exposure (intervention):	Student nurses and new graduate	I will be looking for articles
	nurses with <2 years clinical	on factors contributing to
	experience	student and new graduate
		nurses making drug errors
Comparison/control:	I will be comparing the different	Comparing each of the
	factors attributing to drug errors	factors contributing to these
		errors will identify which
		areas require most attention
		in terms of prevention
Outcome:	Identify the causes of drug errors	I want to know what factors
		contribute to (cause) drug
		errors in order to identify
		potential strategies to
		prevent them
Time:	The duration of student nurse to	My focus is on student
	new graduate nurse practicing <2	nurses and new graduate
	years	nurses with little clinical
		experience because this is
		the most likely time nurses
		will make medication errors
		in their careers

### Rationale:

When publishing evidence-based literature it is important to consider what the exact message you wish to convey to the reader is and similarly, what the most effective means of distributing and promoting the information will be - health promotion is such an integral aspect within the nursing degree and the use of diagrams and supporting evidence used in a poster presentation is a convincing way to promote research findings. Furthermore, posters are a carefully thought out and effective way to disseminate research findings and clinical innovations to a target group. The target group of which my literature review findings are aimed at is nurses as they were the focus of my review. Because nurses are known to be extremely busy, a simple, eye-catching visual presentation is the most efficient and realistic means of sharing this information with them. This poster can be displayed in hospital corridors and staff rooms for nurses to glance at during a spare moment. In doing this, the poster will serve as a reminder and a health promoting tool for nurses and perhaps other health professionals that medication errors are an issue and what can be implemented to prevent them occurring.

### **References:**

Halligan, P. (2007). Poster presentation: Valuing all forms of evidence. Nurse Education in Practice, 8, 41-45

Whitehead, D., & Schneider, Z. (2013). Writing and presenting research findings for dissemination. In Z. Schneider, & D. Whitehead, *Nursing and Midwifery Research: Methods and Appraisal for Evidence-Based Practice* (4th ed., pp. 372-390). Chatswood, NSW: Mosby Elsevier.