Mayhem to Mindful:
Improving Medication Administration Safety through Action Research

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“It may seem a strange principle to enunciate as the very first requirement in a hospital that it should do the sick no harm." (Nightingale 1859)

CERTIFICATE OF AUTHORSHIP ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of candidate:

Date: 25/5/2017

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

GLOSSARY OF TERMS

Adverse event	any unintended harm caused by a medical intervention rather than the patient's underlying condition (Brennan et al. 1991)
Adverse drug event (ADE)	any unintended harm caused by a medicine or lack of an intended medicine (Holdsworth et al. 2003). Includes adverse drug reaction and medication error
Adverse drug reaction (ADR)	any undesirable effect of a medicine during clinical use beyond its anticipated therapeutic effect
Error	the failure of a planned action to be completed as intended (error of execution) or the use of a wrong plan to achieve an aim (error of planning)
Error of commission	doing the wrong thing (ACSQHC 2002)
Error of omission	failing to do the right thing (ACSQHC 2002)
Good catch	a potential adverse drug event which does not reach the patient due to active intervention by someone
Medication delivery process	stages of medication management; prescribing, dispensing, adminstering, documenting and monitoring
Medication error	a failure in the medication process that leads to, or has the potential to lead to, harm to the patient, and includes acts of omission or commission (ACSQHC 2002)
Medication safety	freedom from unintended injury during the course of medication use activities to avoid, prevent, or correct adverse drug events which may result from the use of medications (AHA, HRET & ISMP 2002)
Near miss	a potential adverse drug event which does not reach the patient due to chance
Potential adverse drug event (ADE)	occurrence of a medication error that could result in an adverse drug event but does not because of intervention or chance (Institute for Healthcare Improvement)
Root cause analysis (RCA)	a retrospective review of a patient safety incident to identify what happened and how and why

ABSTRACT

Keeping patients safe is a fundamental component of quality nursing care. Nevertheless medication delivery within a busy clinical environment continues to challenge patient safety and wellbeing. Nurses' central role in medication administration to inpatients puts them in the ideal position to safeguard patients from prescribing, dispensing and administration errors (Vaismoradi et al. 2016). However, the ward context can inadvertently support work practices that compromise patient safety (Balka, Kahnamoui & Nutland 2007), while the seemingly routine nature of medication administration can decrease nurses' attentiveness to the medication administration process (Dickinson et al. 2010).

An action research study, informed by theoretical constructs from critical social theory (Fay 1987; Habermas 1972; 1984), emancipatory practice development (Manley, McCormack & Wilson 2008) and the transtheoretical model of change (Prochaska, Prochaska & Levesque 2001), enabled frontline nurses to work together to understand and improve the safety of medication administration within one ward in a tertiary children's hospital in New Zealand. Data were collected from participants and the researcher throughout the research journey using multiple methods including; questionnaire, interview, observation, review of reported medication incident data, meeting notes and reflective notes. Qualitative data were subjected to iterative thematic analysis and quantitative data were analysed according to the data instrument instructions.

An exploration of the clinical context and practice demonstrated that nurses' medication administration was mayhem; a habitual, distracted and inconsistent process undertaken

in a chaotic and disruptive environment. For nurses, there was a tension between striving to adhere to best practice in the face of many contextual barriers resulting in inconsistency in the safety of medication administration practice. Mindfulness allowed nurses to make sense of the mayhem of practice. It enabled them to see the mayhem, question practice, and develop safer ways of working to move beyond the MAYHEM to ensure MINDFUL medication administration. The Model for Improving the Safety of Medication Administration (MISMA) was developed to illustrate how becoming mindful can be used as a strategy to improve the safety of medication administration. The model can be used to guide nurses to critically analyse their own and team practice and develop, implement and evaluate evidence based improvements in practice.