Sigma Theta Tau International's 29th International Nursing Research Congress

Communicating With Hospitalised Children and Families in Managing Medications: Examining Possibilities for Engagement

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Purpose:

Children are very vulnerable to experiencing medication errors. They may be unable to communicate adequately, or may have a limited ability to address problems arising from medications. In addition, they may have a limited understanding about the medications they take compared with adults (Psaltis, 2014). Children vary in weight and organ maturity, which can affect their body's ability to use medications (Mahmood & Burckart, 2016). For this paper, children are defined as those aged from newborn to 18 years, and family members are people comprising the children's kinship outside of hospital.

Medication errors commonly occur in hospitalised children (Alomari, Wilson, Solman, Bajorek, & Tinsley, 2017; Rishoej, Almarsdottir, Christesen, Hallas, & Kjeldsen, 2017). Hospitalised children are also very vulnerable if a medication error occurs because there is a great chance that harm will take place (Rinke et al., 2014). Harm includes death, disease, injury, suffering or disability experienced by the child, and involves physical, psychological or emotional forms of harm.

Past work involving hospitalised adults has shown that communication problems are the major cause of medication errors (O'Connell et al., 2016; Smith et al., 2016). Communicating with patients and family is closely associated with engaging individuals in managing medications. The concept of engaging hospitalised children and families with managing medications has rarely been considered as a means of attempting to improve medication safety, and to reduce medication errors. For this paper, engagement refers to supporting children and families to obtain necessary knowledge about the condition being treated and the appropriate proven medications and non-medications, to participate in decisions that reflect their preferences and values, and to influence medication decisions (Gwara, Smith, Woods, Sheeren, & Woods, 2017; Knafl et al., 2017).

The aims of this paper are to: examine how children and families are involved in managing medications in hospital; and to identify possible opportunities for child and family engagement with managing medications.

Methods:

Using an ethnographic research design (Tickle, 2017), the study was undertaken at an Australian, tertiary, 334-bed, paediatric teaching hospital. Participants included doctors, nurses, pharmacists, hospitalised children and families. Interviews, observations and focus groups were conducted from March 2014 to February 2016 in three wards comprising a medical ward, a surgical ward and a specialist, mixed medical and surgical adolescent ward. A retrospective clinical audit was also conducted from July 1, 2010 to June 30, 2015 of all reported medication errors occurring in the hospital.

Interviews, observations, and focus groups were analysed thematically using the 'framework' approach (Gale, Heath, Cameron, Rashid, & Redwood, 2013). This approach of five stages involved: familiarisation, identifying themes, indexing, charting, and mapping and interpreting the findings. Descriptive statistical analysis was undertaken for the clinical audit.

Results:

In all, 200 hours of audio-taped observations were undertaken. There were 141 hospitalised children and their families who were involved in observations relating to communicating about managing medications. While observations comprised children of all ages, interviews were conducted with children aged at least 8 years of age. Semi-structured interviews were conducted with 58 individuals. In addition, 74 health professionals participated in focus groups.

Themes comprised sociocultural and environmental influences on engagement, effects of the actual communication encounter on engagement, and outcomes of communication.

Sociocultural influences pertained to children's ability to articulate their understanding about medications depended on their desire to know about the medications prescribed to them and their ability to communicate needs. There was a strong reliance on having parental presence in guiding medication management.

Environmental influences included miscommunications following children's transfers of care between diverse hospital settings, and interactions involving medical staff of different specialties.

Actual communication encounters influencing engagement comprised two types. The first type comprised children and health professionals. These encounters were short in length, and largely involved one-on-one encounters with nurses or pharmacists. The second type comprised encounters with children, families and health professionals, which tended to be variable in length. These encounters were more comprehensive in nature, which were initiated by health professionals and families.

The outcomes of communication comprised the results of the clinical audit, which identified children's and families' involvement in identifying medication errors. There were 3,340 medication errors during the audit period at the hospital. Children or family members were involved in identifying medication errors in 15.4% (n=515) of cases. Involvement occurred regardless of whether the child required medication for treatment of an acute or chronic condition, and for regularly-prescribed and newly-commenced medications.

Conclusion:

It is important that nurses acknowledge that hospitalised children and family members play an important role in the management of medications. Creating opportunities for engagement between health

professionals, children and families can lead to improved medication management and a possible reduction in medication errors. Targeted communication for engagement could focus on nurses seeking out children's and families' views when plans are made for patient transfer of care, and prior to, during and following medication activities.

Title:
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Keywords:
Child and family engagement, Communication and Medication management

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Abstract Summary:
Children are very vulnerable and particularly susceptible to experiencing medication errors. Engaging with children and their families has been recognised as an important way of promoting patient safety. This paper reports on hospitalised children's and their families' communication with health professionals about managing medications to examine possibilities for improved engagement.

Content Outline:
1. Background

a. Children’s vulnerability and susceptibility to experiencing medication errors

b. Participation and engagement by children and families in managing medications in hospital

2. Aims

3. Method

a. Data collection

b. Data analysis

4. Results

a. Sociocultural and environmental influences on engagement

b. Effects of the actual communication encounter on engagement

c. Outcomes of communication

5. Conclusion

a. Summary

b. Contribution to nursing practice and scholarship

c. Implications for clinical practice, education and policy

d. Future research

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Elizabeth Manias, PhD, MPharm, RN
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Professional Experience: Elizabeth Manias is a registered nurse and registered pharmacist with expertise in pain management, medication management, decision making, communication processes and patient involvement. Her research endeavours have made a sustained contribution in how decisions are made between health professionals, patients, and family members. To date, she has received competitive research funding from diverse sources, including the Australian Research Council and National Health and Medical Research Council to support her research endeavors. She has published extensively in journals such as Western Journal of Nursing Research, Annals of Pharmacotherapy, Social Science & Medicine, Quality and Safety in Health Care, The Journal of Pain, Clinical Journal of Pain and Journal of Advanced Nursing. She has also been actively involved with Sigma Theta Tau International in reviewing research grant and award applications.
Author Summary: Professor Manias is a registered nurse and registered pharmacist, with expertise in medication safety and understanding the interconnections between medication safety, health care communication, and patient and family engagement. Her work on medication safety extends across the lifespan from the infants to the oldest old.

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Professional Experience: May, 2011 – current: Nurse Consultant Research, Royal Children's Hospital (RCH), Melbourne, Australia June 2008 – current: Senior Lecturer, Department of Nursing, The University of Melbourne, Australia For several years held clinical and educational appointments within paediatric critical care nursing. In collaboration with medical colleagues established one of the first paediatric Medical Emergency Team (MET) systems aimed at improving the recognition and response to clinical deterioration. Research interests include paediatric resuscitation, paediatric critical care nursing, and improving the safety and quality of care for hospitalised children. Chair, Clinical Effectiveness Committee (RCH): Facilitates the development and maintenance of clinical guidelines relevant to nursing practice. Co-Chair (Nursing) Scientific Committee, World Federation of Pediatric Intensive and Critical Care Societies (WFPICCS) 6th World Congress on Pediatric Critical Care, Sydney, March 2011. Peer Reviewer for The Inquiry into Hyponatraemic-related Deaths, Northern Ireland (2005 –current).
Author Summary: Dr. Kinney's program of research focuses on improving the safety and quality of care of hospitalised children with a particular focus on improving the detection and response to paediatric clinical deterioration.

Third Author
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Professional Experience: June 2011 – Present: Professor/Director Nursing Research, The Royal Children's Hospital (RCH), Melbourne, Australia June 2011 – Present: Honorary Professorial Fellow, University of Melbourne, Australia August 2009 – June 2011: Senior Research Fellow, Departments of Nursing and Paediatrics, University of Melbourne, Australia August 2009 – June 2011: Research Fellow, Haematology Research Group, Murdoch Children's Research Institute, Melbourne, Australia April 1999 – Present: Anticoagulation Nurse Consultant, Clinical Haematology, The Royal Children's Hospital, Melbourne, Australia
Author Summary: Professor Newall's work involves promoting nurses' involvement in research activities

to improve patient care and actively contributing to an organisation-wide approach to supporting and promoting inter-disciplinary clinical research.

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Professional Experience: Professional Experience Associate Professor Cranswick is an experienced paediatric physician with qualifications in medicine and law. He has considerable expertise in clinical pharmacology and therapeutics, and promoting equity of access for safe medication use in children.
Author Summary: Associate Professor Cranswick's program of research involves understanding how medication errors occur in hospital, and the development and implementation of strategies aimed at improving medication use in children in developed and developing countries.

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Professional Experience: Associate Professor Allison Williams is a registered nurse who is committed to quality nurse education and research that will ultimately improve the lives of people with long-term medical conditions and their families. She has established her independent research in two interrelated areas: quality use of medicines and chronic illness management. These areas are soundly built on consumer perceptions of care and engagement with interdisciplinary health providers, and reflect priorities in terms of safety and quality in health care. She has obtained Australian Research Council and National Health and Medical Research Council research grants to support her work.
Author Summary: Associate Professor Allison Williams is committed to quality nurse education and research that will ultimately improve the lives of people with longterm medical conditions and their families. She has established her independent research in two interrelated areas: quality use of medicines and chronic illness management. These areas are soundly built on consumer perceptions of care and engagement with interdisciplinary health providers, and reflect priorities in terms of safety and quality in health care.

Sixth Author
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Professional Experience: Professor Wong is a registered pharmacist with considerable expertise in examining medication safety in relation to hospitalised children and those living in the community. His work involves multi-country research studies to understand patterns of occurrence of medication errors in children.
Author Summary: Professor Wong's research involves understanding medication use in children, with

particular emphasis on the development and testing of medications in children, pharmaceutical care of children in diverse settings, and the analysis of medication errors in children.

Seventh Author
Ellie Rosenfeld, MPH
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Professional Experience: Ms. Rosenfeld is an experienced researcher with expertise in examining the factors underpinning medication errors, medication management of patients across the lifespan, public health issues and hospital care.
Author Summary: Ms. Rosenfeld's research involves the conduct of research on medication safety encompassing diverse research methods, including observations of clinical practice, interviews, focus groups and clinical audits.

Eighth Author
Carlye Weiner, MPsyc
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Professional Experience: Ms. Weiner is a qualified psychologist with expertise in understanding health professionals and patients' behaviour in diverse clinical environments, and the ways in which this behaviour impacts on medication management, particularly for children and their families.
Author Summary: Ms. Weiner's research involves the conduct of research on medication safety encompassing diverse research methods, including observations of clinical practice, interviews, focus groups and clinical audits.

Ninth Author
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Professional Experience: Dr. Borrott is a registered nurse with expertise in understanding nurses' belonging in diverse settings, nurses' workplace satisfaction, medication safety in children and medication errors in children.
Author Summary: Dr. Borrott's research involves the conduct of research on medication safety encompassing diverse research methods, including observations of clinical practice, interviews, focus groups, clinical audits and systematic reviews.