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Perception of Nurses toward Medication Administration Errors at Medical Pediatric Wards in Governmental Hospitals- Gaza Strip

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Dedication

I would like to dedicate this work to the soul of my father…

To my kind mother who prayed for me all the time …

My beloved wife and my sons , for their encouragement and support all the way.

To everyone who contributed to make this study a reality, thank you.

Nidal M. A. Zourob

Declaration

I certify that this thesis submitted for the degree of Master, is the result of my own research, except where otherwise acknowledged, and this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signed:

Nidal M. A. Zourob

……/……/…….

Acknowledgement

First of all, praise is to Allah, the lord of the world, and peace and blessings of Allah be upon the noblest of all Prophets and messengers, our prophet Muhammad, all thanks for Allah who granted me the help and capability to complete this thesis.

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Abstract

Administration of medication is one of the most important duties of nurses as it requires a particular set of knowledge and attitude to be implemented correctly. The purpose of this study was to assess the perception of nurses about medication administration errors at pediatric wards in governmental hospitals of Gaza strip. A descriptive, cross sectional design had been used with 110 pediatric nurses selected conveniently from 5 governmental hospitals namely Al Rantesy, Al Nasser, European Gaza Hospital, Nasser Medical Complex, and Al Najar hospital. An adapted self-administered high reliable (Cronbach's alpha= 0.932) questionnaire was used. The researcher used SPSS program version 22 for data analysis; which the conducted tests were: frequencies, percentage, means, standard deviation, T-test, and Chi square. The results indicated that 67.3% of participants were female nurses, mean age 34.64±8.27 years, 60.9% live in cities, mean years of experience 11.05±7.16 years, 74.5% have bachelor degree, 84.5% married, 68.2% satisfied with their work, and 51.8% working day shift only. The results also showed that 25.5% of the participants reported errors in the process of giving medication at work. These errors capture four main points: type of error, error stage, cause of error and proposed methods to prevent error. Giving wrong type of medication (28.6%) was the most prevalent type of medication errors and most of errors occurred at the administration stage (42.8%). The results showed that there were no statistical significant relationship between the errors in the medication process and the demographic variables; despite of present differences. Ranking of perceived errors showed that giving wrong dose was the most prevalent type of medication errorss, and heavy workload was the most prevalent cause of medication errors. Therefore, the increase number of nurse / patient ratio, the receipt of the prescription correctly, and provision of an appropriate work environment were the most suggested methods to avoid such errors. The domain of fear factors (wt%= 69%, P≤ 0.01), managerial factors (wt%= 66.6%, P≤ 0.01), and reporting factors (wt%= 64.2%, P≤ 0.01) showed the perceived prominent reasons for hindering medication errors reporting. Therefore, the study recommends that ME is a professional act that should not be used for disciplinary or punishment purposes, but should be considered as a healthy behavior to enable the hospital to identify weaknesses in the system and find appropriate solutions to avoid future mistakes.

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List of Abbreviations

ADE	Adverse Drug Event
ADR	Adverse Drug Reaction
EGH	European Gaza Hospital
GS	Gaza Strip
MA	Medication Administration
MAE	Medication Administration Error
ME	Medication Errors
MoH	Ministry of Health
NGOs	Non-Governmental Organizations
NCCMER	National Coordinating Council for Medical Error Reporting and Prevention
NMC	Nasser Medical Complex
OCHA	Office for the Coordination of Humanitarian Affairs
PCBS	Palestinian Center Bureau of Statistics
SPSS	Statistical Package for Social Sciences
UNRWA	United Nations Relief and Works Agency for the Palestinian Refugees in the Near East
WB	West Bank
WHO	World Health Organization

Chapter One

Introduction

1.1 Background

Administration of medication is one of the most important duties of nurses. It requires a particular set of knowledge and attitude to be implemented correctly. Medication errors (MEs) can put nursing practice at risk and can create preventable risk for children. Nurses hold responsibility for taking care of children and providing safety for them. Nurses spend approximately 40% of their time for medication therapy, therefore they have a key role for reduces MEs and increase patients' safety (Ito and Yamazumi, 2013).

National Coordinating Council for Medical Error Reporting and Prevention (NCCMER) define MEs as "any preventable event that may cause or lead to inappropriate medication use or patient harm" (NCCMER, 2017). It's impose more obligation on them, thousands of Americans die due to these errors every year. The financial costs associated with these medical complications have been estimated as $77 million annually (Tang et al., 2007).

Medication errors are a significant and growing problem in health care settings, that understanding of some associated factors, such as the hospital unit and nursing shift, might assist nursing administrators to identify common patterns and improve nursing care, ensure patient safety, and reduce hospital costs. Better organizational systems then could be designed and implemented to reduce potential medication errors (Mohamed and Gabr, 2011). In hospitals, medication delivery passes through 3 steps, the physician orders the medication, a pharmacist prepares the medication, and the nurse administers it. Medication errors can happen anywhere along the chain of the process. Errors can occur with prescribing, documenting, transcribing, dispensing, administering and monitoring. At all these points along the chain, a nurse has to step in and double-check that everyone, from