

## Barriers to Reporting Medication Errors among Nurses: A Review Paper

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### Abstract

Medication administration errors (MAEs) may threaten patients live, and there is no agreement about medication error definition. An electronic searching was conducted in the databases: Cochrane database for systemic review, CINAHL, Google scholar, Pub Med, and EBSCO. The review paper showed that the barriers to self-reporting of MAEs were recognized to be the fear reasons and administrative/management reasons. There is many interventions that need to be applied in hospitals to thrive low rate of medication errors and encourage nursing to report, more study is necessary to verify the effectiveness of each intervention in the prevention and reducing of medication errors rates.

**Keywords:** Barriers; Medication Administration Errors; Nursing; Self-Reporting

### Introduction

Globally, the MAEs represent a major health problem in hospitals that cause injury and death [1] and threats patient safety [2]. Also, it cost the world about 1% of the total global health expenditure [3].

There is no agreement about the definition of medication error. Medication error is “any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, healthcare products, procedures, and systems, including prescribing; order communication; product labeling, packaging, and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use” [4].

According to literature, there are different types of medication errors; with the most common type was incorrect time for administration of medication [5,6]. The other types of medication errors include: the wrong dosage calculation [7], incorrect medication [8], and incorrect patient [8], error in technique [9], omitting a drug due to drug availability [6], and administration of not prescribing drug [9]. In order to reduce MAEs and improve patients' safety, nurses should follow the six rights of medication administration [10].

There are many different factors that may contribute to MAEs; nurse-related factors (age, experience, and knowledge and skills about medications) [11], physician-related factors (such as: not clear of change medication order) [12], nurse-physician related factor (such as: poor communication between nurses and physicians) [5], organizational factors (overworked, nurse to patients ratio, night shift, and MAEs depending on the department) [13] and patients-related factors (patient age frequently in pediatric patients) [13].

The major barriers of reporting the medication errors were: Fear of negative consequences (punishment and lose of job), and fear of blame [14,15]. Other barriers that may affect the self-reporting of medication errors were: lack of policies to report, managerial/administrative factors, ambiguous process to report, nurses with high experience, level of nurses education and the nature of error [14,15].

### Aim of the Study

This paper intends to review the major literature to recognize the barriers to self-reporting for MAEs. Additionally, provide recommendations to reduce the MAEs and encourage nursing to report.

### Methods

#### Search methods

The electronic searching was conducted in different database: Cochrane database for systemic review, CINAHL, Google Scholar, Pub Med, and EBSCO. Key search terms used were: 'Barriers', 'medication administration errors', 'nursing' and 'self-reporting'.

Inclusion criteria were studies (a) discuss the medication administration errors and the barriers to report (b) published between 2007 and 2020, (c) published in English. While, review articles, comments, editorials, letters, books, and thesis reports were excluded from this study.

#### Search outcome

Searching of literature yielded about 40 studies for review, 20 excluded when reviewed the title, 9 when reading the abstract and 11 studies met the inclusion criteria. This final examination resulted in 10 studies, excluding studies consisting only of abstracts, review studies and irrelevant studies.

### Results and Discussion

Administration of medication to patients is an important role of the nursing practice with high possibility of medication errors to occur. According to past studies there were no important differences in what nurses believed as MAEs among nurses [16] and nurses' attitudes towards MAEs reporting were tending towards positive [17]. However, the reporting among nurses was low [16]. For example, a study conducted in Ethiopia found that the prevalence of MAEs reporting was 29.1% among nurses [18]. In Taiwan, a cross-sectional study found that about 88.9% of MAEs were reported orally, while 19.0% were reported through the hospital internet system [17]. While, in Iran the prevalence of MAEs was around 17.0% [10].

Regarding reporting of medication errors, the nurses don't report errors because of the personal perceptions and misunderstanding on what constitutes an error, whether significance of the error changes the requirement that all errors should be reported [19], and the nurses didn't think that an error was serious enough [15].

The main barriers to self-reporting for MAEs found in the present review were: First, fear (fear of punishment, fear of blame, fear of annual evaluation affecting, and fear from reactions of patients and their families), [14-16,20,21] and fear related to judicial issues [17] and from disciplinary actions [15]. Second reason, administrative barriers (administrative attitudes, and response to MAEs) [14,18] and management barriers (inappropriate reaction from manager, presence of a culture of blame and disciplinary action, and inappropriate feedback of manager after error reporting) [21]. The third reason was the lack of information and difficulty to reporting errors (the

importance of error reporting, how to report, and recognize if MAEs occurs) [20,21]. Fourth, the lack of medication error recording and reporting system in hospital, lack of appropriate feedback, and lack of clear definition of MEs [21,22]. Finally, other less significant reasons associated with lack of time to reporting errors [20]; and the workload as a result of high number of patients [10].

On the other hand, some studies found an important correlation among barriers to report and a number of demographic data (gender, age, educational level, and years of experience) [23-31].

### Conclusion

The purpose of the present review paper was to recognize barriers to reporting MAEs. The MAEs may be not reported or underreported because of a range of factors, including individual perceptions, fears, and misapprehension on what constitutes a medication error. Barriers to self-reporting of MAEs were recognized to be the fear reasons and administrative/management reasons. It is apparent that there are many of interventions that need to be applied in hospitals units to maintain low rate of medication errors and encourage nursing to report such errors. Because of the significance of the topic, more study is necessary to verify the effectiveness of each measure in the prevention and reducing of medication errors rates.

### Implications and Recommendations for Nursing Management

- Nursing managers address the heavy workload to reduce MAEs.
- Nursing managers work in providing updated medication administration guidelines, sufficient space/room for preparation of medication, educational programs and continuous training for health care providers.
- Nursing managers apply of strategies in work such as clinical pharmacists, and computer/information technology.
- Nursing managers should establish anonymous reporting systems and counseling classes to create a secure environment to reduce nurses' fear and offer incentives to promote reporting.

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