

## Incident Reporting: Perception among Nurses in a Tertiary Hospital in Malaysia

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### Abstract

**Background:** Incident reporting is important aspect in patient's safety, improvement and care. These improvements are done by learning from the incidents, near misses and preventing it from recurrence.

**Aim:** This study aimed to assess knowledge nurses perception about incident report at tertiary hospital on what to report in the reporting system and identify reasons for not reporting.

**Methods:** Convenience sampling method used requiring participants to complete the questionnaire pre and post teaching/awareness. Data was analysed with SPSS version 20. Descriptive and Pearson Chi Square was used to determine the association. 288 questionnaires returned pre-teaching/awareness and 284 questionnaires returned post teaching/awareness. There were 17 questions on nurse's perception and 19 questions knowledge on incident reporting.

**Results:** Descriptive analysis showed 99.7% nurses knew this hospital have an incident reporting system and know how access the incident form (97.9%). 50% have filled an incident form and 7.3% filled it a month prior to the study. In this study 80.6% nurses knows whose responsibility it is to make the report, 78.8% are worried about disciplinary action and 76.7% feels once the case is discussed with the person involved nothing else need to be done. Pre-teaching/awareness finding showed that 43.06% nurses the knowledge on incident reporting. After 3 months of teaching and awareness the number increases to 67.61%. Work unit has significance association with incident reporting.

**Conclusion:** This study has showed that awareness to the system is important especially to all new nurses that join the organization. Therefore, incident reporting system should be included in the orientation program for all new nurses. Ward managers should play their role identifying knowledge deficits on incident reporting among their nurses and improving it.

**Keywords:** Incident Reporting; Nurses; Perception

### Introduction

The definition of Incident in healthcare is "Any unintended or unexpected incident which could have or did harm one or more patients" thus, this suggests that improving healthcare system requires understanding the causes and incidents [12,15]. In 1999, Institute of Medi-

cine in its report called *To Err is Human: Building a Safer Health System* stated that 44,000 people the least to as many 98, 000 people die due to medical errors that could been prevented [3]. Errors here is due to human and system causes, it will be benefit if from the incident reporting useful information is analyzed with similar cases at other institution [9].

The incident reporting system used in hospitals to communicate all information that comprises basic clinical details and description of the incident, it is used with the purpose of safety and quality improvement [13]. To improve the quality of care, it is important to learn from the mistakes that happened and avoid the same mistakes being repeated [8,9]. This shows that incident reporting is important for patient safety and improvement of quality care [6].

As shown in a study by Chiang, *et al.* (2010) that 337 (47%) nurses failed to report incident self-done or done by co-worker and identifying hazards is important by educating the staff [10]. Reporting system is used with the reason of learning which is firstly alert regarding new hazard, secondly through investigation and patient safety [9].

All healthcare profession should abide to the healthcare regulation and consistently use the error-reporting system.

### Aim of the Study

This study aimed to identify the reasons for not reporting and assess nurses' knowledge on the use of the incident reporting system.

### Materials and Methods

#### Study design

This was a quantitative quasi experimental pre and post test study. A total of 288 nurses pre-test and 284 nurses post-test participated in this study.

#### Setting

This study was conducted at the in-patient department of a tertiary hospital.

#### Selection of participants

The eligibility criteria for this study consist of nurses that were on duty during the study period.

#### Instrument

The barrier to reporting questionnaire used in this study is a replication from the study on "Attitudes and barriers to incident reporting: a collaborative hospital study" by Evans, Berry, Smith, Esterman, Selim, O'Shaughnessy and DeWit in 2006. The questionnaire, using 3 point Likert scale consists 2 parts. In the part A there were 3 questions related to demographic data addressing years of service, education level and working unit. In the part B 3 sub sections consist of 4 questions related to EZ form (reporting system) (question 1-4), knowledge on incident reporting (question 5-23) and barrier to reporting (question 24-40). For post-test nurses were evaluated on EZ form (reporting system) and what to report.

#### Reliability

The pilot study was conducted on 30 samples to ensure the reliability of the instrument. The Cronbach's Alpha value was 0.716 in this study.

**Data collection and analysis**

Data were collected from nurses at a teaching hospital after obtained the permission from ethical unit; all nurses recruited for this study were required to answer the questionnaires to obtain the base line reading. Following that the nurses were given a face to face teaching on reporting system, they were monitor for about a month. They were asked to answer the questionnaire again after a month.

Data were analyzed using the Statistical Package of Social Sciences” SPSS version 20.0 version of window software. Descriptive statistics was used to explain the demographic data and Pearson’s Chi Square test was used to see the correlation between accident reporting knowledge and the participants’ demographic characteristics. The cut-off point is set as 100 for what should be reported in the questionnaire.

**Ethical considerations**

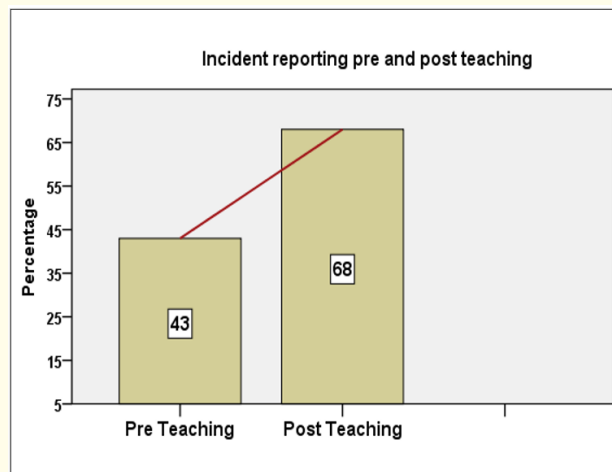
Ethical approval was obtained from the Medical Ethics Commitee of the studied setting prior to actual study. The participation in this study was voluntary basic and their details were kept as confidential throughout the study.

**Results**

Total respondent from working units were Surgical and Critical were 66 nurses (22.2%), Paediatric 60 nurses (20.8%), Medical 52 nurses (18.1%) and O&G 44 nurses (15.3%). Majority of the studied participants have working experience of 1 - 5 years (54.5%), followed by 6 - 15 years (34.7%) and 16 - 40 years (10.8%). With regards to their education, 224 (77.8%) participants had diploma, whereas 64(22.2%) participants had post basic qualification.

Ninety nine point seven percent of studied participants knew that the studied setting has an incident reporting system and know how to access the incident form (97.9%). Among them, 50% of studied participants have filled an incident form and 7.3% filled it a month prior to the study.

Regarding with knowledge on incident reporting, pre-test finding showed 43.06% participants has the knowledge. Before conducting the post-test, the researcher was given to all participants who included nurse managers and nurses for the period of 3 months on awareness of incident reporting education. Furthermore, the nurse’s managers were given the responsibility to educate all nurses under their care. Therefore, the result of post-test showed that there was an increase awareness of incident reporting from 43% to 67.6% as shown in figure 1.



**Figure 1:** Pre and post-teaching on knowledge on incident reporting.

On the other hand, regards to staff perception towards reasons for not reporting found that 80.6% of studied participants knows whose responsibility it is to make the report., However, 78.8% of studied participants were worried about disciplinary action and 76.7% feels once the case is discussed with the person involved nothing else need to be done as shown in table 1.

Items	Yes n (%)	No n (%)
I am worried about disciplinary action.	227 (78.8%)	61 (21.2%)
When the ward is busy I forget to make the report.	93 (32.3%)	195 (67.7%)
I am worried about litigation.	174 (60.4%)	114 (39.6%)
The incident forms take too long to fill up and I just don't have time.	130 (45.1%)	158 (54.9%)
My coworker maybe unsupportive.	79 (27.4%)	209 (72.6%)
I don't know whose responsibility it is to make the report.	56 (19.4%)	232 (80.6%)
I don't want the case discussed in meeting further.	93 (32.3%)	195 (67.7%)
I don't fill confidence the form is kept anonymous.	96 (33.3%)	192 (66.7%)
Adverse incident reporting unlikely to lead to system changes that will improve the quality of care.	145 (50.3%)	143 (49.7%)
I don't want to get into trouble.	170 (59%)	118 (41%)
Junior staff are often blamed un fairly for adverse incidents	108 (37.5%)	180 (62.5%)
When the incident does not eventuate or a correction was made (a near miss) then I don't see any point in reporting it.	104 (36.1%)	184 (63.9%)
If I report something I never get any feedback on what action is taken.	93 (32.3%)	194 (67.4%)
I feel that if I discuss the case with the person involved nothing else need to be done.	67 (23.3%)	221 (76.7%)
The incident was too trivial (of little value or importance).	98 (34%)	190 (66%)
It's not my responsibility to report somebody else's mistakes.	86 (29.9%)	202 (70.1%)
Even if I don't give my details I'm sure they'll track me down.	143 (49.7%)	145 (50.3%)

**Table 1:** Incident reporting Staff perception on reporting (n = 288).

The result on association between participants' incident reporting knowledge and their working unit showed that there was statistically significant with p value of less than 0.05, ( $X^2 = 136.050^a$ ,  $df = 68$ ,  $n = 288$ ,  $p < 0.05$ ) as shown in table 2. Therefore, this concludes that the two variables were associated. Participants from bigger units and units with higher work complexity have more awareness and knowledge regarding incident reporting.

Unit	Pearson Chi-Square					
	Good	Poor	Total	X <sup>2</sup>	df	Sig.(p)
Pediatric	17 (28.3%)	43 (71.7%)	60 (100%)	136.050 <sup>a</sup>	68	0.000
Medical	35 (67.3%)	17 (32.7%)	52 (100%)			
Surgical	40 (60.6%)	26 (39.4%)	66 (100%)			
O&G	6 (13.6%)	38 (86.4%)	44 (100%)			
Critical	26 (39.4%)	40 (60.6%)	66 (100%)			
Total	164 (56.9%)	126 (43.1%)	288 (100%)			

**Table 2:** Pearson's Chi Square association between incident reporting and unit (n = 288).

a. 71 cells (78.9%) have expected count less than 5. The minimum expected count is .15.

### Discussion

Patient safety culture is crucial in the healthcare system and therefore safety alerts such as incident reporting system provide guidance on preventing occurrence of the incidents and improve the quality of care.

Our survey has shown that that most of participants were aware of the incident reporting system. This result was similar with a study done by Evans (2006), found most doctors and nurses (98.3%) were aware that their hospital had an incident reporting system. On the other hand, regarding with knowledge on what should be reported into the system, minority of participants have that knowledge and it was similar to the study by Lederman, Dreyfus., *et al.* (2013) found that only few participants had the knowledge on RiskMan medical error reporting system.

Education on awareness about incident reporting was provided to all ward managers that will be responsible to educate all nurses that are under their care. From this intervention, the researcher found that the participants' knowledge was much improved. This was similar with previous studied, nurses that are given training on incident reporting will report an incident compare to those with no training [5].

Regards to the question about do nurses know whose responsibility to report an incident in this survey showed that majority of participants knew about it. In AbuAlRub., *et al.* (2015) found compare to nurses and physicians, nurses were more aware of the incident reporting system.

Regarding with worried about disciplinary action is the second barrier to not reporting as accident. In this study, majority of participants did not report due to worried about disciplinary action. This was similar to the finding by Peyrovi, Nasrabadi and Valiee (2016), fear of punishment was the cause for not reporting of medication error.

In the aspect of participants' perception on incident reporting in this study showed that majority of them felt once the case is discussed with the person involved nothing else needs to be done. This was contrast with previous study done by Yung., *et al.* (2016), found that only minority of medication error was reported into the system whereas majority were reported verbally and no action was taken.

In this survey it is found working unit has significance association with incident reporting. This was similar with previous study done by Vifladt., *et al.* (2015) found the reporting of an incident among nurses and physician had bigger differences between units.

### Conclusion

This study found that there was increase in incident reporting by nurses post teaching/awareness. Incident reporting is important component in patient safety culture. Preventing an incident will only happen if the root cause is identified, therefore reporting an incident is the initial step.

The organization plays an important role in providing awareness program on incident reporting in the healthcare setting communicating the importance patient safety culture and improving care.

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### Conflict of Interest

The authors declare no conflicts of interest.

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