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RESEARCH ARTICLE

Perceptions of critical incidents and incident reporting among nurses in a tertiary Philippine hospital

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ABSTRACT

Introduction: A growing advocacy in patient safety has been noted in the nursing profession attributed to the reported number of preventable injuries and errors in the delivery of health care. The development of timely and effective reporting system greatly impacts this cause. The study aimed to explore the perceptions of nurses regarding critical incidents and investigate the factors affecting their decision to report a certain event.

Methodology: Six focus group discussions were conducted with 28 nurses working in the service wards of a tertiary hospital. Discussions utilized open-ended questions and prompts, targeting participants who experienced handling or being involved in critical incidents. Data gathered were analyzed using a descriptive qualitative approach adopting a deductive thematic analysis, identifying common patterns in nurses' responses, and generating more encompassing themes.

Results: Three key themes emerged from the discussions. Firstly, nurses expressed their perceptions of incidents, highlighting factors influencing their recognition and classification of critical events. Secondly, the perceptions of the reporting process presented the attitudes, norms, and the prevailing incident reporting culture, further revealing barriers and facilitators to reporting. Lastly, nurses provided perceptions of management actions including suggestions to improve the reporting system, and the response of the administrators, emphasizing the need for supportive structures and processes.

Discussion: Findings underscore the importance of transforming the workplace culture to foster a safe environment for incident reporting. Recommendations include comprehensive orientation programs on incident reporting protocols and cultivating trust and openness. Targeted interventions and strategies are necessary to address identified barriers and enhance the reporting system. Further research is warranted to explore and analyze error reporting practices among other healthcare professionals, thus contributing to a comprehensive understanding of incident reporting in healthcare.

Keywords: *hospital communication systems, nursing education, error reporting, critical incidents, patient safety*

Introduction

The growing interest in patient safety has heightened the need for effective and sustainable strategies among healthcare institutions. Health care institutions shifted their perspective on the accountability on the occurrence of errors, and how often it happens among in-hospital patients by adopting a systems view [1]. This meant that the responsibility of patient safety is not focused on the immediate care provider but is addressed by the entire organization including being responsible for the management and prevention of these different threats to safety.

The inevitability of errors has been widely accepted in most health care organizations due to the complexity of processes and the multitude of clients cared for by the system. Hence, a focus on changing the organizational culture and redesigning its key processes via analyzing and evaluating information gathered from effective reporting systems [2]. Studies have shown that the development of an effective reporting system is an important strategy for promoting patient safety in the institution [3]. Other authors have mentioned how valuable the information collected from

incident reports improves service delivery, and prevention of critical incidents [4,5].

However, most institutions retained traditional reporting systems aimed at identifying persons involved in the incident, creating ad hoc committees to investigate such events, and reinforcing disciplinary actions or penalties for those found guilty. International healthcare institutions have already established more sophisticated and convenient incident reporting systems for nurses, but their effectiveness has been noted to be less than optimal. Critical incidents have remained under-reported by health professionals, including nurses [7-9]. One study even suggested that the sole use of incident reporting systems is not sufficient to capture incidents and hospital-related problems, especially those that are related to diagnostic error, delayed management of the condition and personnel behavior [10]. Because of its potential to improve care delivery, there is a need to identify what hinders the reporting of errors to improve the current incident reporting systems.

Previous studies reported issues with these reporting systems in place, but the extent and motivations affecting reporting behavior were inconclusive. Some studies have examined error reporting behaviors accounting for work environment (*e.g.*, safety climate, safety culture), and social capital variables (*e.g.*, staff incentives) however contrasting findings of these variables with safety outcomes were noted [11]. The social and emotional consequences of reporting are the primary reason why nurses do not report incidents [12]. Other studies showed that the severity of harm to the patient, and desensitization to "usual" system breakdowns blurred what is considered as a critical incident [13].

Considerable research has focused on improving patient safety through safe administration of medications [14], or surgical safety [15], but lesser attention has been paid in understanding the identification of critical incidents, barriers to error reporting, and ways to overcome these perceived hindrances. A few studies examined hindrances to error reporting such as fear of sanctions, fear of being judged or involving other colleagues, complex and time-consuming procedures; and lack of noticeable or apparent systematic improvement [8,16,17]. However, there is limited literature on the barriers to reporting incidents among nurses based on the Philippine context. Other Asian studies mentioned that nurses encounter critical incidents in practice, but most events are not reported and reasons for such behaviors were not explored in these studies [18,19]. Local studies focused on safety attitudes and climate [20], but there was no local article exploring the role of reporting systems in nursing practice.

The aim of the present paper is to explore and be able to gain an understanding of perceptions of nurses regarding what constitutes a critical incident, describe and identify factors that influence reporting behaviors; and explore possible actions to address the under-reporting problem. The current study intends to have a better insight into the barriers and facilitators of incident reporting, and subsequently propose strategies to improve the error reporting behaviors and attitudes of nursing personnel.

Methodology

Research Design

A qualitative descriptive design was chosen to answer questions about human behavior, motives, views, and barriers [21]. Focus group discussions were selected over in-depth interviews despite the sensitivity of the topic to concentrate on group dynamics, norms, and perceptions in relation to their current work environment [22].

Participants and Setting

The study took place in a large, tertiary teaching hospital, with an estimated capacity of 1,350 beds catering but not limited to medical, surgical, and critical care patients with separate units for charity and pay-patient services. There were about a thousand bedside nurses working in more than twenty hospital units and using a voluntary paper-based reporting system coursed through the units' complaints and communication logbooks. In the institution, explanation letters were addressed to the nursing director through the nurse manager or nurse supervisor as a protocol. After an initial investigation was done, the more serious incidents were forwarded to the nursing director with recommendations by the nurse manager/supervisor.

A stratified purposive sampling technique, specifically maximum variation, was used to ensure the representativeness of a heterogeneous pool of information-rich sample populations. There were relatively fewer nurses from the pay-patient services than the charity units, and their perspective on these incidents might differ. The same situation can also be noted in terms of the perceptions of incidents between staff nurses (Nurse II) and charge nurses (Nurse III) also perform managerial roles in the unit. As such these health care worker groups need to be represented in the study, the sample

population was initially stratified into pay-patient and service units. The nurses for every unit sampled will be stratified again but this time according to their current position. Purposive sampling of the nurses from every stratum will be conducted based on the inclusion and exclusion criteria of the study.

Nurses who fit the following inclusion criteria: (1) a regular employee of the hospital involved in patient care, directly or indirectly, (2) currently holding a Nurse II or III position; (3) with at least a year or more of experience in the current unit assigned; and (4) working at the charity and pay wards were eligible to participate in the study. The only exclusion criterion was not being able to sign or consent to participate in the activity.

There is no predetermined number of participants, but the saturation point was reached during the fourth session. An in-depth interview with an eligible participant was conducted to further determine that the saturation point was indeed reached. A total of thirty-five nurses participated in the study with six nurses for the pilot study, twenty-eight nurses during the focus group discussion, and one nurse who was interviewed. However, the study focused on the narratives of the twenty-eight nurses working in the service wards.

Data Instrumentation

Two tools were used in the data collection. The first one is a semi-structured focus group guide, composed of a series of open-ended questions and probing questions to explore the perception and practice of incident reporting among the staff nurses. The researchers developed the topic guide based on the literature found about the concepts of incident reporting and the factors influencing reporting behaviors.

The second tool would be a set of case scenarios, like what was used in a study examining perception of errors among health workers [23], developed by the investigators to assess the perception of an incident among the participants. Six scenarios were used and all of them are critical incidents that warrant formal reporting. However, the scenarios differ in the type of outcome for the patient (i.e., positive, or negative outcome), and the type of problem present (i.e., improvisation, lack of equipment, violation of protocol, compliance problems, presence of a health hazard). The cases were incorporated in the topic guide to serve as a springboard for discussion on what circumstances they perceive as reportable, as well as perceptions on the reporting system. For every scenario, the participants were asked to decide if the case presented a reportable event, the rationale for their choice; and the next action the participant would have taken given the case exemplar.

The instruments were developed using both the English and Filipino languages, after these were shown to two experts in nursing research. There were no suggestions or comments on the initial instrument. However, they suggested that the English version be used during the data collection since the participants are college graduates, and these tools were recommended to undergo initial testing.

Six female nurses were part of the group for pilot testing, composed of two nurses working in the pay floors, while the rest were from the charity services. The length of time for the initial focus group is about two hours and was digitally recorded. After the discussion, the participants were asked for their remarks on improving the data collection activity.

The participants agreed that the chosen place for the FGDs was secluded and free from any distraction, and an appropriate location to conduct a study with such sensitive nature. No modifications were suggested for the case scenarios, which they found helpful prompts to facilitate the discussion. However, they suggested revision of some questions that would require two to three responses; and ask three questions instead. They also recommended clarifying follow-up questions in the topic guide to allow the participants to completely grasp what was being asked.

In addition, they have suggested using the version of the tool in Filipino since it was easier to understand and the terms in the local dialect was not as intimidating, and as such the Filipino version was used throughout the study.

Data Collection

The focus groups were conducted in a private, secluded function room in a building used only by medical students and trainees. The primary investigator, who was trained in conducting qualitative studies served as moderator, while a dedicated research nurse served as observer during the focus group discussions. The secondary investigator was not physically present nor was given an idea about the study participants since she served as immediate manager of nurse supervisors in the institution. Moreover, unit or section heads were not explicitly informed of the topic for the study and were only informed that the participants were invited to participate in a patient safety focus group so as not to introduce power imbalance or deliberate selection of representatives for the FGDs.

The FGDs were recorded through an audiotape recorder and later transcribed verbatim by the researchers. The observer recorded non-verbal utterances, gaps in utterances, emphasis, and gestures to describe the reactions of the discussants. Detailed notes and a summary of FGD session were also written by the moderator. The duration of the sessions was planned to be at most 90 minutes though the duration of the actual FGDs ranged between one to two hours.

The duration of the initial FGD was two hours, and the participants were asked for their remarks in improving the data collection activity. The combination of focus groups and responses from the activity guide was known to enrich qualitative data through different sources.

Upon identification of eligible participants, a member of the research team explained the pertinent information about the study. Written informed consent was obtained on the scheduled FGD date, along with completion of a socio-demographic data form and the activity guide.

Sessions were facilitated by the primary investigator who is accompanied by another investigator acting as observer and field note taker. Only the participants and researchers were present in the room during the discussions. The primary investigator is a male nurse, who does not hold any administrative position and was trained in qualitative research and facilitating FGDs. The focus group discussions were tape recorded and digitally transcribed verbatim. Non-verbal cues, gaps in utterances, and gestures of the participants were also noted. Only one member of the research team transcribed all the FGDs to ensure reliability and was reviewed by another investigator.

The number of sessions was not determined earlier in the study because of the sensitivity of the topic and expected hesitation from the participants. However, three FGDs would be representative of the sampling population, but the data was saturated at the end of the fifth focus group. It can be noted that around 80% of the sub-themes were repetitive, and additional FGDs merely added descriptors for the sub-themes during the fourth focus groups. The fifth session was conducted to validate if the sub-themes will also be repeated, which was what happened for the said FGD.

The investigator also performed a debriefing after the FGDs which allowed them to express residual emotions or feelings, and clarify or answer questions about their involvement in the study. A few participants verbalized privacy concerns that would have affected their responses during the actual discussion but felt assured that their participation will not affect their employment in any way. The investigators were also given the option to communicate with a member of the research team who is experienced in mental health counselling and debriefing.

A follow-up interview among select FGD participants was done to validate if the summary of findings was accurate and reflected on the perceptions mentioned in the results. The interview was digitally recorded but was not included in the data analysis.

Data Analysis

The FGD transcriptions were thoroughly read several times, and coding was done using predetermined categories based on the description of reporting behaviors in literature. The units of analysis for this study were the perceptions of an incident and the perceived barriers on event reporting; using a qualitative description of the perceptions [21], and adopting a deductive approach to identify themes and sub-themes.

A deductive approach was used, since the tenets of the Theory of Planned Behavior were used as a lens to organize, code, and interpret the data. The theory suggests that the behavior of an individual depends on one's intention to perform the said action. The intention is dependent on one's attitudes toward the behavior, the subjective norm, and the perceived difficulty to perform the said behavior [24].

Other meaningful units were identified by drawing on the posed research questions and those raised by the participants during the focus groups. One investigator identified initial coding through phrases, mentions, and repeated words, while the other two researchers categorized, compared, and contrasted these codes. The emerging themes were compared to all the transcriptions and were arranged together to relate them with each other.

The authors validated the findings by independently reading and categorizing the units; and met to settle disagreements about the themes to reach a consensus.

Ensuring Trustworthiness

Various methods to enhance trustworthiness and improve rigor of the data were implemented by the researchers. Transferability was enhanced by thickly describing the data collection process, using different sources of data, and the choice of seeking a heterogeneous sample. Credibility was

addressed with interviews and were simultaneously analyzed and compared to create a multifaceted description of the context and the experiences of the participants, as well as using direct quotations from the participants. Also, information from the field notes and the generated themes were presented back to the respondents for congruency and veracity. Confirm ability and dependability were ensured through the use of an audit trail in the recognition and classification of the codes; discussion between investigators on the creation and comparison of themes as well as forming conclusions for the study.

Reflexivity was addressed via keeping audio-taped notes, member checking, and constant re-checking of codes by other investigators. Prior to ending the discussions, the facilitator also summarized what was covered or agreed upon for the participants to comment on, or to correct misunderstanding by the investigators. Furthermore, bracketing was used to enhance reflexivity, where the researchers document their preconceived ideas and beliefs of the researchers before and after collecting data, and after the analysis enhanced reflexivity. In documenting and comparing how these ideas have changed during the study, the researchers acknowledged their personal or political perspectives that could have affected how the qualitative analysis was conducted; and allow re-evaluation of these interpretations.

Lastly, authenticity was addressed by allowing time for the researchers and participants to establish trust and rapport; and get them to share their experiences more openly.

Ethical Considerations

The University of the Philippines Manila – Review Ethics Board through the Expanded Hospital Research Office (EHRO) originally approved the study protocol (NUR-213-192-01), and all participants had a written informed consent before any data collection procedure. Due to its nature, participants cannot be assured of anonymity, but discussants were encouraged to avoid disclosing what has transpired in the FGDs with non-participants. The researcher used code numbers or pseudonyms during data analysis. Only members of the research team were given access to the information that was gathered. Likewise, only a summary of the results was provided to the study participants as validation and finalization of the results. No pictures or videos were taken during the data collection, while the documentation and recording of the focus groups was written explicitly in the informed consent.

Results

The number of respondents per focus group session ranged from four to nine nurses, and the investigator attempted to maintain representativeness of sociodemographic characteristics (*i.e.*, type of unit, current position) between the focus groups. The researchers conducted five focus group discussions with a total of 28 nurses participating in the study. No participant refused or withdrew from the FGDs. The baseline characteristics of the participants are shown in Table 1. The association of the responses and their areas or types of patients cared for, as well as other characteristics, was not included as part of the study objectives.

From the discussions, three key themes surfaced based on the nurses' experiences in managing and handling incidents in the workplace. These key themes include: (1) perceptions of an incident, (2) perceptions of the reporting process, and (3) perceptions of management action in terms of the reporting process.

Minor themes were also identified by the researchers, and themes that appear to have consistently similar elements were later grouped together for a better understanding of the perceptions on incident reporting among nurses. The hierarchy of themes and codes used for the said study can be seen in Table 2.

Table 1. *Sociodemographic Profile of the Nurses (n=28)*

Characteristics	Summary Measure
Age in years *(median, range)*	36, 24 - 56
Sex of the participant	
Female	24 (85.71%)
Male	4 (14.29%)
Type of unit	
Charity service	22 (78.57%)
Pay service	6 (21.43%)
Current position	
Nurse II (Staff Nurse)	13 (46.43%)
Nurse III (Charge Nurse)	15 (53.57%)
Post-graduate studies	
Yes	2 (7.14%)
No	26 (92.86%)
Years in service *(median, range)*	
Current unit	6, 1 – 27
Hospital	8, 1 – 27
Type of patients attended	
Surgery	13 (46.43%)
Obstetrics and Gynecology	11 (39.29%)
Pediatrics	6 (21.43%)
Neurology	6 (21.43%)
Internal Medicine	4 (14.29%)
Ophthalmology	3 (10.71%)
Otorhinolaryngology	3 (10.71%)
Psychiatry	3 (10.71%)
Oncology	2 (7.14%)
Rehabilitation Medicine	1 (3.57%)

Table 2. *Identified Themes and Sub-themes from the Focus Group Discussions*

Main Themes	Sub-Themes
Perceptions of an Incident	1. Outcome of the Event
	2. Repeated Offenses
	3. Variation in the Perception of a Reportable Event a) Differences across type of services b) Differences across units c) Role of more experienced nurses (“seniors”) d) Lack of a clear and shared definition of an event
Perceptions of the Reporting Process	4. Negative Attitudes and Feelings towards Reporting a) Lack of feedback b) Consequences of reporting (e.g., fear, shame, etc.) c) Unclear reporting format or guidelines d) Alternative forms of reporting e) Issues of privacy
	5. Use of Mediating Actions a) Containment b) Covering Up c) Supportive colleagues
	6. Use of Reporting for Improvement a) Clarification b) Documentation c) Learning point d) Staff protection
Perceptions of Management Action	7. Approach to Incidents a) Judgmental approach b) Sympathy for the staff c) Unfair decisions
	8. Response to the Incident a) Lack of action b) Need for staff supervision c) Reinforcement of guidelines
	9. Feedback and Monitoring

Perceptions of an Incident

The initial question given to the nurses during the FGD was about what they consider as reportable incidents. Majority of the respondents answered medication errors. Others reported the occurrence of lapses or delays in their assigned work with examples like documentation issues such as not noting which medications were given during the shift or not issuing clearance from the pharmacy for hospital discharge. Inability to perform necessary intervention such as changing of intravenous access due to phlebitis or delayed infusion of inotropes and volume expanders were also mentioned.

However, the volume of patients, set up of the unit and clear understanding of the patient safety culture may have influenced the respondents' perception of errors. As such, case exemplars were needed to facilitate a grounded and similar stance on critical incidents.

Case scenarios on various types of errors in the delivery of care were presented to the respondents. All case exemplars necessitated formal reporting regardless of the outcome and who were involved. The subsequent actions of the participants were also categorized, and Table 3 and 4 summarized their responses in identifying errors and subsequent actions on the presented scenarios, respectively.

It can be observed that most of the nurses were able to identify occurrence of errors or health care delivery issues when the persons involved were fellow nurses, and if a bad outcome has occurred. However, only less than half of the participants identified a scenario with a violation of hospital protocol and a good outcome has occurred.

One can also notice that improvisation issues are less commonly recognized as an error which might partly be attributed to most of the nurses interviewed coming from

Table 3. *Nurses' Perceptions of Errors in the Case Scenarios (n=28)*

Scenarios	Identified Error	
	Yes	No
Improvisation Issue, Other Professional, Good Outcome	21 (75%)	7 (25%)
Equipment Problem, Nurse, Bad Outcome	26 (92.86%)	2 (7.14%)
Violation of Protocol, Nurse, Good Outcome	12 (42.86%)	16 (57.14%)
Improvisation Issue, Nurse, Bad Outcome	28 (100%)	-
Compliance to Protocol, Nurse, Bad Outcome	25 (89.29%)	3 (10.71%)
Health Hazard, Nurse, Good Outcome	24 (85.71%)	4 (14.29%)

Table 4. *Nurses' Reported Actions to Take given the Case Scenarios (n=28)*

Scenarios	Formal Report	Verbal Report	Report to Senior Staff	Verbal Reprimand	No Action
Improvisation Issue, Other Professional, Good Outcome	6 (21.43%)	6 (21.43%)	7 (25%)	7 (25%)	2 (7.14%)
Equipment Problem, Nurse, Bad Outcome	3 (10.71%)	13 (46.43%)	7 (25%)	5 (17.86%)	-
Violation of Protocol, Nurse, Good Outcome	2 (7.14%)	10 (35.71%)	2 (7.14%)	4 (14.29%)	10 (35.71%)
Improvisation Issue, Nurse, Bad Outcome	11 (39.29%)	8 (28.57%)	7 (25%)	2 (7.14%)	-
Compliance to Protocol, Nurse, Bad Outcome	8 (28.57%)	5 (17.86%)	7 (25%)	7 (25%)	1 (3.57%)
Health Hazard, Nurse, Good Outcome	14 (50%)	3 (10.71%)	10 (35.71%)	-	1 (3.57%)

the charity service. Such events are not considered as issues but rather viewed as acceptable actions to deliver necessary interventions amidst resource constraints.

It can also be noticed that for the majority of the scenarios about a quarter will make a formal report about the incident; and the majority of them would only make a verbal report. It was only in the last scenario where a nurse has been exposed to biochemical hazards that half of the nurses verbalized sending a formal report. The responses to these scenarios were also considered in the generation of sub-themes and key themes of the FGDs since they comprise an important aspect of how nurses perceive a critical incident.

A major finding from the discussion revealed the various perceptions of recognizing and identifying an evident and whether these are reportable or not. Despite the presence of clinical guidelines, pro forma orientation programs, and use of memos or circulars disseminated across all units, the contention over which events must be given special attention appeared to be a threat to the success of an effective reporting system.

The nurses mentioned medication errors as the most common reportable event they encounter. Other responses include lapses in their assigned work such as documentation issues, or not performing important interventions citing examples like noting the administration of antibiotic loading doses, changing the preparation of vasopressor drugs, or replacing the intravenous access when phlebitis occurs.

The sub-theme: *outcome of the event* was reported by the nurses as the main factor influencing the decision of a staff nurse to report an incident would be the degree of harm, or potential harm, associated with said event. This was considered as an important contributor to the issue of selective reporting, where some incidents are more often reported than other events have been mentioned.

In one of the case scenarios, the nurse used an inappropriate equipment to administer an aminoglycoside antimicrobial to an elderly patient, which can be painful or even result to venous burns. However, most of the discussants perceived the event should not be reported since the nurse only improvised the administration due to resource constraints. As one participant put it:

"If an event jeopardizes the patient – safety of the patient, or the nurses or other personnel – that should be reported. But there are instances that you need not to report formally anymore, verbal reprimand would be enough. Let us say, there is a delay or minor change in the drug administration and if no significant effect happened to the patient – the

nurses can just talk about it and settle the matter within themselves." (5J, 37 years, Staff Nurse, Charity)

Ideally, the incident should be reported since the intravenous therapy guidelines of the institution mentioned that a volumetric infusion set should be used instead of an intravenous push. Moreover, the existing guidelines in the hospital states that all incidents must be reported as part of the quality management system and for resource implications.

Some nurses reported a more stringent approach in defining a critical incident, as exemplified by the statement:

"Regardless of the outcome to the patient, if there is a complaint or event, even if already resolved within the shift – I tend to make a formal incident report. My view is that you ae making an IR for proper documentation purposes only." (3C, 34 years, Staff Nurse, Charity)

Another important sub-theme is the decision to report an incident depending on the presence of repeated offenses, which was exemplified by the statement:

"Aside from the patient or staff well-being, an important consideration is if the event repeatedly happens, or if the offender commits the incident again and again. These things should be reported then – no matter how petty it is. There is considerable harm or bother when a petty incident happens often." (2D, 29 years, Junior Head Nurse, Charity)

Nurses tend to let an error pass for an initial offense, then remind their co-staff not to repeat it again. Since they try to consider a busy work shift or unexpected events occurring resulting to the error or lapse, the other nurses on duty will try to understand and look after each other.

However, the sub-theme: variation in the perception of a reportable event showed that which events are considered reportable vary from one area to another, and can be attributed to different types of patients being cared for as exemplified by statements such as:

"In our unit, beds do not have side rails so patient-related falls are common. There is no written report, but we have verbal discussions with the doctors about what happened. We include the incident in our charting, but more often such an event does not reach the supervisors. We just limit it to patient endorsements during transitions – where we tell our colleagues that – this or that patient fell yesterday and other relevant information" (6B, 30 years, Staff Nurse, Charity)

Nurses from purely medical and surgical units reported increased focus on administering due medications compared to an increased perception of inability to process insurance papers, facilitating diagnostic tests, and referral to co-managing physicians as reportable events among nurses from the pay patient services. Differences in the status of equipment and other facilities from one unit to another were also demonstrated by the said statement.

One discussant mentioned the confusion about which incidents need to be reported to a more senior staff or other professional. After which, these senior staff would have to decide whether a formal written report is needed from those who were involved. This can be inferred from the statement by a charge nurse:

"There are times when you do not really know what policies are to be implemented anymore. Senior nurses will tell us that this is not allowed, but you can also see some of your peers doing the said thing. You do not know what is right or wrong anymore – since it cannot be observed in the actions of our other colleagues." (3E, 32 years, Junior Head Nurse, Charity Service)

One participant mentioned the role of senior nurses with these variations of perceived reportable incidents in the unit.

"Most of the time when miscommunication happens that becomes the issue in writing an IR [incident report]. Because there are times when an event is not actually an issue for you, but for those more senior in service – they have a different perspective. There are some people who complain about why they are asked to write a formal IR, because they perceive things differently, an incident report is created to clarify what happened, and for the health care team to understand each other better." (5H, 28 years, Staff Nurse, Charity)

However, this dilemma about what criteria or measure is used to determine if an event is reportable was another burden for the more senior nurses in a shift, and was further exemplified by the statement:

"When a patient is harmed – it is well-defined that such event is reportable. If an event is reportable, the nurse involved will be asked to prepare an incident report especially if the harm to the patient is evident. In cases when there is no notable harm, the decision will be left to the nurses on duty." (3E, 32 years, Staff Nurse, Charity)

Furthermore, some nurses also mentioned that some incidents considered as reportable or serious in one unit can be perceived as petty or not serious in another. This led to strained and difficult working relationships during patient handovers, as supported by the statement:

"There are instances where you think that – do you still need to report this? Because there are times when a nurse makes an incident report just because the IV [intravenous] fluid was not consumed on time. I understand that supposedly, these fluids should be consumed, but not all units have infusion pumps to ensure such delivery. There are also other factors that can affect the flow of IV fluids in a patient. It tends to be bothersome when you must make an incident report just because there is a delay in the fluids that do not even contain any medications. For me, it appears to be very OA [overreacting] about a small matter." (1B, 40 years, Junior Head Nurse, Pay)

These statements suggest that the lack of clear and shared definition of what events need to be reported or not contributes to this variability in perceptions about an incident.

Perceptions of the Reporting Process

Aside from the perceptions regarding which circumstances appear to warrant reporting, another key theme was on how they perceived and what they felt about the reporting system including the process itself, the possible outcomes, and related concerns.

A significant amount of time in the focus groups involved the participants expressing their negative attitudes or feelings towards reporting. Most of the nurses felt that reporting an incident or event causes paranoia or stress towards the activity, as exemplified by this statement:

"The effect [of reporting] is the paranoia that you might be seen as someone who committed a mistake. The experience is stressful since you tend to feel that you are advised to make an IR because there is something wrong you did or something wrong about you. In addition, if you are coming from the night shift, you are already tired and feeling sleepy, yet you must submit the IR before you leave for work. For me, incident reporting is a hassle for the nurses." (6A, 35 years, Junior Head Nurse, Pay)

Another nurse mentioned that writing or making an incident report adds a perceived amount of unnecessary time in the hospital for the nurses. Another negative feeling associated with reporting is the consequential fear from reporting. Based on the FGDs, there are two kinds of fears experienced– the first is a fear for one's career such as punishment or implications in performance appraisal, and the other fear would be the possibility of having one's colleagues make the workplace difficult for the nurse doing the report. These kinds of fear were noted in this statement by one of the discussants:

"From what I have observed, what happens is that when you respond to an event with an IR, the narrative tends to be used against you. Since you agreed to make a report, you cannot deny your involvement in the incident anymore, and are readily judged for it. There are even times when the number of IRs you make is considered in performance appraisal. Some supervisors even tell you that: "you have submitted four IRs in the past six months, you will be given a lower score for that." Sometimes, these possible consequences to your career or interpersonal relationships when reporting an incident led to fear of making a fuss about things that can be settled or hidden from other colleagues." (6B, 30 years, Staff Nurse, Charity)

Aside from the fear, nurses also felt that making an incident report also affects one's self-esteem – probably due to the stigma or shared notion of one having committed a mistake or done something wrong to be asked for a report. One participant mentioned that being involved in these incidents tends to lower their self-esteem, especially since other nurses would look down on you if you have been asked to make incident reports. The bout to self-esteem is more severely reported by senior nurses verbalizing that one took care of his/her reputation – only for one report to tarnish your career.

Other issues raised by the nurses included unclear reporting format or guidelines and the lack of feedback from the management after the reports were submitted by the nurses. Based on the focus groups, they were only able to have control on the alternative means of reporting an incident, but a more pervasive feeling was the presence of issues on privacy and confidentiality.

Ideally, the reports made by a nurse, or any health care personnel should remain private and not divulged to people who are not involved or affected in any way by the incident; or in case, the report is needed for legal purposes.

Based on the FGDs, most nurses felt that before even accomplishing the reports various interpretations have already been told by their co-workers to other people in the unit or in the hospital. Hence, this lack of privacy has led to a reluctance to report any incident or situation that occurred during the delivery of care. Nurses felt that some colleagues tend to sensationalize the occurrence of an event, and this gives them the impression that incident reporting is not confidential.

With these, some of the nurses also mentioned the need to feel protected from the rumors, or any consequences from the spread of the contents of these private reports to other people. The following statements illustrate such concerns:

"One of my concerns is that if incident reporting is conducted to protect oneself. How would the current reporting systems protect those who become involved in incidents from misinformed stories, fabricated punishments, and being labelled as a less competent nurse? I think that we should be protected from this as well, yet more often, it becomes an open issue – with some people not directly involved in the incident more affected than those who are involved.

There was even this instance where the problem was between two of my co-nurses in the unit, and the manong [administrative assistant] was merely trying to mediate the situation. But people from other areas have this idea that the cause of the fights was a love triangle among them. I was even asked by someone from another unit if I was the person involved in the said incident. When people hear about such critical incidents, they want to associate a face with the things they hear." (3A, 43 years, Staff Nurse, Charity)

Another sub-theme is the use of mediating actions in the workplace. Most of the nurses felt that because of the complexity of the process and consequences of reporting, co-workers tend to make use of certain actions to handle the incident. These activities tend to include containing the event within the shift, trying to cover up or limit information shared to other people, and claiming that the issue has been resolved before it reaches the level of managers. This can be further exemplified in this statement:

"If I'm being completely honest, my personal stance is if I can cover for my nurse colleague, I would. If the incident is not serious and the patients do not really know about it, we will try to contain it within the shift. Even if the incident might be a bit obvious to the families of the patients, we will look for ways to resolve the issue. As a more senior colleague, I also feel that it is my discretion whether I should share or inform my superiors, if I can see that the event has been resolved well – there is no need to inform other people. I have worked with a lot of people and a lot of supervisors, and my principle is that if us [within the shift] can contain and control the situation, we do these actions instead of involving other people." (3E, 45 years, Junior Head Nurse, Charity)

Another important aspect would be the use of incident reporting for improvement, such as using these reports to protect oneself from any culpability. This shows the more positive side of reporting where these reports are perceived as merely narrations of what happened or the details of the circumstance, and exemplified in this statement:

"Sometimes you tend to be confused about what to include in the reports. There is a sort of battle between what is true and what should protect you as well. I was even advised to omit some details, especially if it is easy for doctors to pin the problem to you. You tend to evaluate the extent of information you will share in the incident report – enough to shed light on the event and not too much to put you in trouble. Nurses, especially new ones, tend to be reluctant to inform others of such events." (1E, 25 years old, Staff Nurse, Pay)

However, a concern that arose from the use of incident reports as a means of protecting the nurse from any liability or involvement in a critical event would be the amount of detail or information that will be written in the report. The nurses have mentioned about how they would picture what happened in their mind repeatedly to look for possible loopholes that would put the nurse involved as responsible for the event, and they admitted to removing some details upon writing or submitting the report.

Some nurses also perceived that if people in administrative positions truly learn about these incidents and read the reports well, they will be able to understand the context of the event. This recognition might lead to actions to address supply or training issues; and even better monitoring why certain incidents occur more frequently in a unit or in a shift.

Perceptions of Management Action

Another major theme that was discussed by the nurses during the focus group discussions would be their perceptions of management action when these critical incidents occur, particularly those deemed by nurses as formally "reportable." This part of the results shows how these nurses view the subsequent decisions or actions done by their unit head or supervisor aftermath the event, as well as their suggestions for improving how these nurse managers handle the situation.

For the sub-theme *approaches to the incident*, the FGDs mentioned that the nurse managers of their unit tend to take a different approach when a critical incident or event occurs – with their decision depending mostly on two factors: who reports first, and who has served longer in the institution.

Most of the participants in the study felt that their head nurses or supervisors have become unfair with their

decisions or treatment of the situation. Some of them felt that once they are pointed out as the main person involved in the incident – judgment is already laden to them. The following statement exemplify these concerns:

"Sometimes, the investigation conducted is not truly fair. It is a matter of who informed the head nurse first. From experience, the result of such situation is negative since we [co-nurses in the unit] felt already judged before even submitting the narrative report of the incident. Most of us felt that justice was not served, and the person who informed the head nurse was not even examined also about her involvement.

Just like what was mentioned before, it is always a subjective decision about which event is reported. There are times when two nurses commit the same mistake but only one of them was asked to submit an IR. The other nurse who is close to the seniors or has connections with other employees is given unlimited chances without having to report an event. No matter how much the administrators contain the issue, it remains unfair for the other nurse who endures making an IR and being judged by their peers." (5E, 27 years, Staff Nurse, Charity)

Some discussants also felt that the nurse managers aside from showing sympathy and understanding to the staff nurses, the administration should also be aware of unfair decisions or responses that they have made due to these incidents, as stated by a discussant:

"From my end, when I make an incident report, it always ends with an apologetic tone and humbly expressing not to repeat the same actions again. However, when the head nurses or supervisors make such mistakes, you do not hear them being humble or apologetic. They just do not care and think that the staff nurses should strive to avoid these incidents, regardless of any administrative action. I had to write an IR about the lack of supplies for preparing a patient for surgery, but I never heard any sorry from the admin people." (5B, 39 years, Junior Head Nurse, Pay)

In addition, some of the nurses also felt that the nurse managers must not only have a hand for stringent enforcement of rules and policies, but a hand to show care and concern for the staff involved in the reported event, too.

"Aside from standards about which events need to be reported, I would recommend that counselling services must also be offered to nurses. They can encourage one to narrate better and be supported whether they committed a mistake or not. Head nurses should also be offered training in how to handle such incidents and how to support their staff.

I would also like to be assured that they are on my side, and that they are willing to help us. This would ease the burden and encourage other staff to be more comfortable in reporting such events, and that actions will be taken to address the cause of such problems." (5H, 28 years, Junior Head Nurse, Pay)

Another important sub-theme would be the *response to these incidents*, some nurses were looking for noticeable management actions such as the need to reinforce and clarify what events or situations warrant reporting as well as the consequent punishment or management action.

"I think the additional problems about incident reporting in the institution, aside from identification of a critical event. There is a lack of clear guidelines about how, when, who receives a copy, and how are the submitted reports handled. I think there should be a standardized process on how to handle these events. This would also address the confidentiality issues mentioned a while ago.

There are no clear guidelines also about how to decide the punishment or consequences to the staff involved. I am not even sure if these reports are processed and discussed by our heads. Feedback is only given to grave situations, but not for minor incidents – are they even discussed or studied by the administration?" (5A, 31 years, Junior Head Nurse, Pay)

The participants also felt that there should be a corresponding action to any reported event or situation. However, most of them felt that their supervisors tend to focus only on major events or those with a huge impact, while leaving the rest of the events unnoticed or merely letting it pass.

This is related to the other sub-theme of how the administration should provide *feedback and monitoring* about a critical event. The nurses felt that follow-up about what happened must be given to those people involved in the incident as stated by one of the discussants:

"In my years of working in the institution, one of the things that remain unanswered is what happens after I submit my IR especially when the event is not that serious? Only those people involved in situations when you must face a reprimanding panel – because a grave offense was committed receive feedback. Usually, if the situation is of less severity, one does not receive any updates about the management decision on the event or complaint of a patient. I feel that we are also entitled to know about the status or perception of nurse supervisors on the incident." (5B, 28 years, Staff Nurse, Pay)

The researchers summarized the perceptions of what constitutes an incident, as well as perceptions about the reporting systems, using the dimensions of the Theory of Planned Behavior (Figure 1). This behavioral theory can be used to provide a framework as to what affects the intention and/or decision of a nurse to report critical incidents.

The researchers randomly selected three nurses to verify if the themes captured the essence of what was discussed, but only one female charge nurse was able to participate. The nurse agreed with the themes and agreed with how their responses interplayed in the conceptual model. However, she emphasized that in the context of error reporting, perceived control has an additional contribution in performing the behavior. She further added that improved guidelines and more tangible administrative action can improve the rates of reporting in the institution.

Discussion

Briefly, the findings in this study showed that various aspects influenced the decision of a nurse to report or not report an incident or circumstance that occurred during the delivery of health care services. The preconceived attitudes and expectations of the nurse, the interpretation of hospital/unit guidelines, perceived capability to report and the workplace culture have the greatest influence towards making such a decision. The nurses also described that they understand the importance of reporting and have been oriented on how to write an incident report, but they lack appropriate reinforcement to accomplish such reports or become vigilant in participating in the said activity.

As a result, the participants in the focus group have viewed error reporting as a hassle, a means of passing blame thus, associated with negative feelings or consequences for them. This situation produces a disparity between the organizational goals of improving patient safety through an effective reporting system and its implementation in the units.

Incident Identification

The findings of the study have showed support to various authors having speculated that health care providers have inadequate knowledge about what constitutes a critical incident, and ability to recognize and identify an incident plays a significant barrier to patient safety [25]. Clear-cut and overt errors such as wrong side of operation or drug overdose have received more emphasis and are greatly dealt in management meetings, but most of the mistakes in the delivery of health care services are in reality - ambiguous, subtle, and not seem to warrant further action [26]. This concern has been exemplified with nurses' lack of idea of what happens to their report after submission, and the subsequent corrective measures to prevent recurrence of the incident or error.

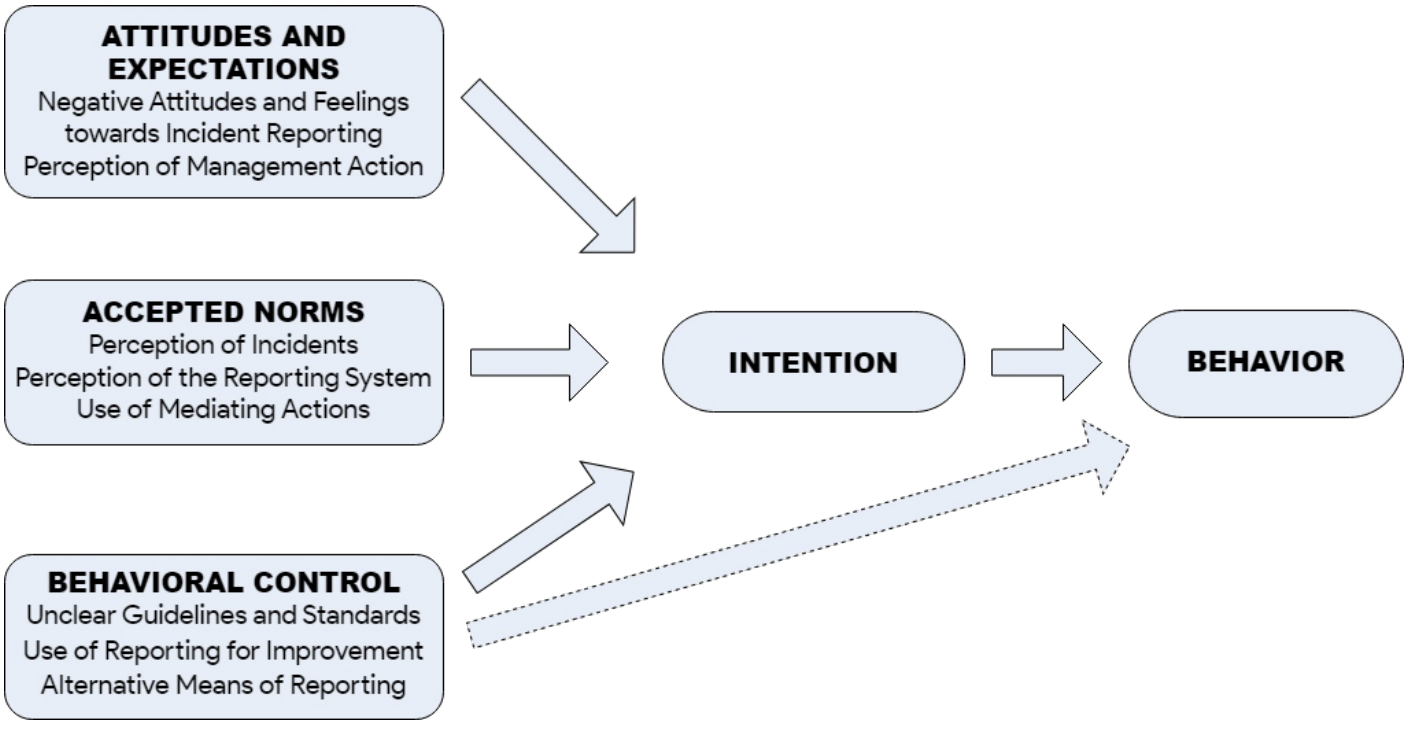

Figure 1. *Concept Diagram of the Nurses' Perception of Incident Reporting*

Healthcare workers' knowledge on error identification and subsequent actions is an important predictor of an effective reporting system [27]. The FGDs illustrated this problem since the nurses and their managers were not fully aware of near misses, other forms of errors in service delivery, and contentions of what events need reporting. Other contributions of reporting incidents such as recognizing lack of supplies and available equipment were not considered by the nurses. Moreover, the usual occurrence of some incidents tends to "desensitize" nurses from considering such events as reportable [28]. Even suggesting that the concept of "error" becomes distorted by the increasing familiarity of nurses with the usual problems in the workplace, and realizing that some errors are not life threatening and manageable when caught in a timely manner.

Some studies mentioned that the passing of knowledge and decision-making schema from a senior to a younger colleague becomes the fragment for the existing workplace culture, resulting to a highly subjective and variable perceptions of critical incidents and the reporting system [29]. As such, a comprehensive and inclusive re-orientation program can improve patient safety. One study suggested that a combination formal (e.g., lectures, seminars) and informal (e.g., pamphlets, social media reminders) educational sessions can be used to increase the knowledge of nurses [30]. Moreover, it was noted that there is a strong association between attendance to patient safety training and an increase in the error reporting rate while also ensuring that the educational programs are tailor-made, accessible, and consistently done in the institution [31].

There is a need to design a reporting system where anonymity should be an important component. This include maintaining the anonymity of the reports, minimizing the formality and completion of reporting forms, and the presence of timely feedback from the administration [16]. An anonymous system means a non-punitive reporting culture which may help in making the nurses more comfortable and receptive to reporting errors and adverse events. It may also help to establish patient safety communication strategies by doing a briefing at the start of the work shift and debriefing at the end of the shift to identify possible problem areas expected like lack of resources, difficult patients and others and how to manage these [10]. This will help the nurses anticipate possible problems thus reduce if not eliminate possible errors.

Workplace Environment

The health care profession has traditionally relied upon an unhelpful strategy to reduce errors and improve quality of services – specifically, shaming and blaming individuals who are found to be involved in the incidents accompanied by accusations of incompetence, unprofessionalism, and unworthiness [32]. Like the verbalizations of the nurses in the focus groups, individual error has been viewed as a moral failure on the part of the practitioner and rarely does the organization recognize the systems nature of error and patient outcomes [17].

As a result, the underreporting epidemic continues to result in unwanted injuries or deaths due to fear of consequences or judgment from coming out to report any of such incidents [33]. Other organizational factors mentioned included lack of feedback on the subsequent actions or management plans to address these loopholes in the health care delivery system can also be deterrent to improving the reporting process [34]. Complex process of reporting such as long forms and insufficient time to report were also identified by the participants as barriers to reporting [27].

Based on the FGDs, nurses were aware of the importance of an effective reporting system but do not have enough knowledge and intent to contribute to this due to organizational factors [35]. A more unified understanding of critical incidents or situations does not only increase the rates of reporting, but information from the reports can be used to develop more concrete, goal-oriented management actions[36]. A common suggestion in literature is a standardized operational context of critical events to avoid feelings of partiality among nurses [37,38]. Also, incorporating other methods of recognizing substandard hospital care such as inadequate supplies, non-standard procedures, or communication errors which can be integrated with the incident reporting [39].

Moreover, reducing the stigma of having committed an error or filed an incident report through counselling and staff support; as well as training of the nurse managers on how to handle therapeutically these situations, may also contribute to the development of an effective reporting system [40].

Nurse leaders are advised to maintain a safe, non-judgmental, and non-punitive workplace environment where admission of errors, other critical incidents and relevant concerns; and a thorough, proactive, and non-defensive investigation and corresponding managerial action as to why these situations occur is needed [41]. It is imperative in a patient safety culture to consider errors or incidents as learning opportunities, thus the organization and the nurse managers are compelled to establish an enabling environment of learning [39].

The Theory of Planned Behavior posits that individuals can decide and execute their intentions to engage in the said behavior [24]. However, based on the responses of the nurses, one's actions are not necessarily the same or aligned with their behavioral intentions. Many behaviors do not appear to be completely under one's control particularly in the face of negative perceptions of the reporting systems in place. Moreover, the fear of sanctions, organizational culture, and perceived lack of administrative action on critical incidents might render the theory's assumption about volitional control and performance of the behavior not entirely compatible among nurses given their workplace context [42].

Conclusion and Recommendations

The current study has aimed to explore and improve the understanding of how nurses perceive critical incidents and what factors interplay with their decision to report the said event. The perception of error or critical incident among the staff nurses were influenced by their "desensitization" to the health care environment, accepted beliefs and guidelines by the more experienced nurses and the outcome of the situation. At the same time, the perceived management action or consequence of reporting, workplace norms, and the perceived capability of the nurse to report greatly affect their reporting behavior.

Importantly, even though there are structures and processes existing in the institution regarding reporting, the nurses still feel that they were still lacking or not sufficient to partake in such activities. The issues of privacy, negative feelings associated with reporting such as low self-esteem and being labeled as incompetent; and the need for staff support from their immediate superiors appeared to warrant significant intervention. Education and training of all nurses regarding patient safety and better reporting systems may also be beneficial.

An enabling environment where learning and support for patient safety mindset may prove essential in a positive regard for error reporting. Both the management and the frontline workforce would greatly benefit from a more proactive, non-punitive reporting system and conversely, improve the delivery of health care services to the clients which impacts on positive patient outcomes.

A major limitation of the study is the lack of representation of staff nurses coming from the critical care and other special areas – which limits the generalizability of the findings to those coming from the service wards. The authors also felt that the sensitivity of the topic may have also contributed to the hesitation and reluctance of some participants in the study to fully participate in the activity despite obvious strategies done by the researchers.

The findings of the study can result to a better understanding and consideration of the nurses' perceptions about incident reporting systems. Nurse administrators can work in developing a better and clearer definition of what constitutes a critical incident, as well as improving on the reporting procedures currently in place, and eventually create a safer workplace for patients and health workers.

Its implication in nursing education would be to improve the capability of nurses to recognize and act on reportable events, as well as look for ways to improve safety culture in nursing. It is imperative that patient safety essentials be clearly defined in the nursing curriculum. The culture of safety must be integrated in the different courses or subjects in the nursing curriculum to help the students gain a safety mindset.

Future research on error reporting systems and its importance in sustaining the patient safety culture would be beneficial in ensuring positive patient outcomes and in sustaining a healthy work environment for nurses. The inclusion of nurses from specialty units, use of an external FGD facilitator, or a different set of case exemplars can also be done in studies that wanted to determine their unique perceptions of errors and reporting errors in healthcare. Future studies can focus on the development of a more effective, uncomplicated, and anonymous reporting system; and the development of educational materials for bedside and administrative nurses can be conducted. Research activities can also be conducted via utilizing information gathered from these incident reports; and how they can be resolved to improve organizational processes.

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