ADVERSE INCIDENTS REPORTING IN A PAEDIATRIC UNIT OF A UNIVERSITY HOSPITAL IN GHANA

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Presented at the Sigma Theta Tau International's 44th Biennial Convention in Indianapolis, Indiana-USA

Introduction

Adverse events (AEs), defined as injuries caused by medical management rather than the underlying disease that lengthen the hospitalisation or produce a disability, constitute a serious problem for the health care industry and a drain on the national health resource (Leonard, 2010; Vincent et al., 2001). Children are at higher risk to suffer AEs because of their unique physiological and developmental needs (Choonara et al., 1996; Stratton et al., 2004) and have been found to be exposed to up to three times the rate of AEs such as medication errors compared to their adult counterparts (Kaushal et al., 2001). For understanding, preventing recurrence or reducing AEs, data on the frequency and types of events is important. The approach most commonly used for uncovering adverse patient events is through the use of incidents report which is typically completed by health care staff (Taylor et al., 2004). In line with these, this study was undertaken to review the incidents reports of the Paediatric Ward to determine the most common types of AEs that occur in the unit, how they are reported as well as factors that influence paediatric nurses to report AEs and make recommendations for improvement in paediatric adverse events reporting.

Methods

Setting
The 28-bed capacity Paediatric Ward of the Kwame Nkrumah University of Science and Technology (KNUST) Hospital, Kumasi-Ghana was used for this study.

Study design/Sample
This was a descriptive case study. The Incidents Book of the Paediatric Ward was retrospectively reviewed from October 2010 to December 2016 (6 years) to determine the incidence and types of adverse events recorded. Subsequently, the nurses' awareness of policy and process of adverse events reporting and factors that facilitated or inhibited adverse events reporting by the nurses were explored .

Data Collection
- A pre-designed checklist was used to gather information from the Incidents Book.
- In-depth interviews were also conducted with nine nurses (three key informants and six other nurses) who had worked in the Paediatric Unit for one year or more.

Ethical Consideration
Clearance to conduct the study was sought from the Committee on Human Research, Publications and Ethics of KNUST and the management of KNUST Hospital. Informed written consent was also obtained from the nurses before they were interviewed.

Data Analysis
We described the types of adverse events that were reported. Qualitative data from the interviews were transcribed verbatim, read several times and coded. Content analysis approach was used to analyze the data and the main questions constituted the categories.

Findings

Adverse events reported
A total of 11 adverse events were recorded within the six-year period. Of these, 5 were related to medication errors, 1 involved delay in transferring a patient to a tertiary hospital for further management which resulted in death, 1 was related to thrombophlebitis, 2 were associated with electrical shock from faulty incubators, and 2 parents absconded with their children.

Reporting of adverse events
- Nurses' awareness of reporting adverse events

All the nurses were aware that they have to report an adverse event when it occurs even though it is not explicitly stated in any policy document of the facility.
While the nurses were aware that they have to document adverse events, there were divergent views about which document to use.
The ward-in-charge asserted that the incidents report book was the designated book for reporting AEs.

> "The hospital has provided an incident book in each of the wards and in my ward too, and we make sure that we document the incidents". (Key informant 1)

However, some of the nurses reported otherwise.

> "Yes, we sometimes document certain incidents in the nurse's notes and report book but not in the incidents book itself". (P 2)

> "I prefer using the quality assurance form to documenting in the incidents book. It is more detailed". (P 1)

- Rate of documentation

The ward manager purported that all adverse incidents are documented and stated this:

> "In my opinion the nurses are not under-reporting. When I hear of an incident, I'll say go and write it and ensure that it is documented". (key informant 1)

> "If I am not around and the nurses call me concerning an incident. I tell them to document it and I inspect it when I return to the ward". (Key informant 3

The nurses, however, admitted that under-reporting of adverse events is a common practice.

> "We document, but not always. I have to be sincere with you". (P 4)
> "I do report most of them but I must say that it's not all of them". (P 6)

There seem to be conflicting opinions between the ward managers and the other nurses about the rate of reporting as the findings above indicate.

Process of reporting adverse events

There was no standardized method of documenting adverse events in the unit. Participants held varied opinions about the process of reporting. According to the ward in-charge, the process begins with the nurse informing a superior (ward in-charge or shift in-charge) about the incident and documenting it in the incident book. The charge nurse then makes a follow up if need be.

> "We have a book for –err- incident writing book. When an incident happens, the ward or shift in-charge isinformed then the nurse puts it in writing- how it occurred. Some of the incidents can be managed at the ward level so the ward in-charge sees to them but the one's above her, she also forwards to the chief nursing officer [the matron] and the necessary actions are taken." (key informant 3)

P 1 reported that:

> First of all, here if an abnormal occurrence happens that I think will harm the patient, firstly, I report it to the immediate in-charge if available. Then as they're trying to solve the issue then maybe she in turn will report to the house officers or the paediatrician around. Thereafter, I'll document in the incidents book [exercise book]. We have a column for date, time, then you summarize what actually happened.

Other participants however, reported that the process begins and ends with a verbal information to the nurse in-charge.

> *"We say it verbally. Saying it or reporting it verbally, we do it". (P 4)*

Some participants also preferred reporting an adverse event to a trusted colleague instead of the nurse in-charge.

> *"You might tell a colleague but might not go to the extent of telling the in-charge". (P 5)*

Another participant stated that she usually reports adverse events to the quality assurance team.

> *"I usually report to the members of the quality assurance team, because in this hospital, they are responsible for documenting adverse incidents". (P 2)*

Because of the divergent views about the reporting process, it may have resulted in many incidents not being captured in the appropriate document, culminating in under-reporting.

Reasons for reporting adverse events

Participants cited different reasons as informing their decision to record adverse events. These included patient related factors, practice related factors, facility related factors and the nurses' personal factors.

- **Patient related factors**

Some of the nurses reported that the condition of the patient at the time the adverse event occurred greatly determined whether they will report or not.

> *"Sometimes when the patient is well and can report the incident herself, then it is advisable that you report because if you don't, the patient will and that might put you in trouble." (P 5)*

Another consideration was the effect of the incident on the patient. Some nurses reported that if the patient could tolerate the incident without any serious repercussions, they may not report it.

> *"If the child is old enough to cope with the effect of the incident and the effect is not grave when I monitor the patient, then at times, I ignore it." (P 1)*

- **Practice related factors**

Most of the participants asserted that reporting adverse incidents could improve practice and prevent future occurrence.
The nurse-manager said:

> *"I think that it will help to prevent further occurrence and also if something happens out of that incident we'll know how to solve it immediately. That is the more reason why it's mandatory to document." (Key informant 1)*

This assertion was supported by other participants

> *"Lessons can be learnt from your mistakes when you document. We can refer to the incidents book from timeto time and know the possible cause of the incident so it will be avoided next time." (P 2).*
> *Some nurses also suggested that reporting could help in preventing complications as immediate actions could be taken.*

> *"Sometimes when an incident happens and immediate action is taken it can prevent serious complications. So I think reporting it immediately can prevent the condition from progressing to a fatal state" (P 4)*

The narratives revealed that the nurses felt the burden of responsibility of managing an adverse incident is shared when the incident is reported.

> *"If you keep it to yourself, you just have one shift and you'll obviously close and go 'home. What happens to the patient? But when you report it; make the in-charge aware, the next shift aware of what happened, they will monitor the child very closely on your behalf and prevent any complication that might happen to the child." (P 3)*

- **Facility related factors**

All the participants admitted that reporting incidents could have an impact on the image of the facility. However, there were varied opinions as to whether the impact was negative or positive. One nurse reported:

> *"I think reporting has a positive effect on the image of the hospital. It makes the patient have trust in our services that even in the course of care delivery, if anything should happen to them, we are prepared to take it up and find appropriate solutions to them." (P 6)*

There was also the impression that having a few incidents recorded meant that the facility was doing well, thus improving its image.

> *"We do record and report them. So if you couldn't find many incidents recorded in the book it means we are doing our best." (Key informant 1)*

However, some participants also purported:

> *"Sometimes you feel that when you report you are exposing the hospital. Sometimes there are no consumables to use and this may lead to the occurrence of an adverse event. So you feel that if it becomes an issue, the hospital may be in trouble. You may therefore want to cover it up and solve it on yourown." (P 1)*

- **Nurses' personal factors**

The narratives revealed that the nurses considered the effect that the reporting of adverse events would have on them. Some felt that reporting had a positive emotional impact on the nurse.

> *"For instance, if you are to serve syrup Paracetamol orally and you mistakenly give it IV and you don't report, it will haunt you because you will always be thinking; what is going to happen to the patient? Can it kill the patient? You see you'll be thinking of it and I think it's going to affect you." (P 4)*

> *"It clears your conscience and makes you feel safe. Even if you were not able to do much, after reporting, the right people will come and intervene in your absence. But if you don't document it, who knows the outcome of what you did not write or report?" (P 5)*

Other participants purported that reporting has legal implications for the nurse.

> *"You feel free because you feel secured that if it should get to a legal problem, you have something to support or defend you. Because you've documented, you're at peace. Nobody can call you again and ask you if this happened, why didn't you report. But if you don't write it and later it pops up, you will be in trouble." (P 2)*

It is evident from the narratives that the factors that influence nurses' decision to report an adverse incident are varied and legitimate and need to be considered in improving reporting practices.

Barriers to adverse events reporting

Identifying the reasons that adverse events are not reported is crucial to finding interventions that support reporting of all adverse incidents.
Findings of the study showed that there are many barriers that nurses are confronted with respect to reporting adverse incidents. The barriers were primarily insufficient knowledge about adverse incidents, heavy workload on the ward and organizational factors.

- **Insufficient knowledge about adverse incidents**

The following comments from some of the participants revealed that there were gaps in the knowledge of nurses on what constituted an adverse event:

> *"If I'm able to identify that this is an adverse event, I'll write. But if I don't know and some people also think its not one, then I will not write and no one will also prompt me to" (P 1)*

> *"Because let's say you come in contact with an incident, you hardly know about these things. We need to be abreast with some of the conditions that have to be reported so that we'll just be vigilant" (P 6)*

It was also evident that some nurses trivialized some of the adverse events and felt it was not necessary to report such.

> *"…if a patient is given a wrong medication you have to assess if the medication is going to cause havoc to him/her. For instance, a patient is supposed to receive cefuroxime and you give them gentamycin, ideally it wouldn't change, it wouldn't cause harm to the patient" (P 2)*

> *"At times something happens and you ask the nurse, have you recorded it…? [In Twi…. Ah, wei nso ɣɛtwerɛ?]. Meaning, Ah, should we record this one too?" (P 4)*

> *"You think it's an incident but, you see some of the incidents, for instance a nurse-patient interactions which go bad, you might not actually take it to be all that serious… it does not really affect either you the nurse or the patient. This is nothing to report." (P 5)*

- **Heavy workload on the ward**

Several respondents mentioned that the workload during a shift contributed to instances of non-reporting. Prioritizing other nursing procedures over documenting adverse incidents was deduced from the narratives.

> *"Some nurses say they can't waste time to write this down whilst a patient is dying. So they consider the time and the work available." (Key informant 2)*

> *"At times it's the work load. If the work load is too much it can prevent you from documenting though that is not your plan." (P 5)*

- **Leadership style of the ward-in-charge**

Some of the participants intimated that the leadership style adopted by the ward in-charge affects their decision to document adverse events. A participant stated:

> *"Okay sometimes the in-charge might be strict and she would query you alright, ɛbɛka ha, [meaning it will remain in the ward]. But for some in-charges, it might not. You'll be there and you'll be called to come and meet a committee." (P 5)*

- **Organizational factors**

All the participants expressed fear of punishment as a major barrier to reporting adverse incidents. The fear of losing her license to practice as a nurse was cited by a participant:

> *"Sometimes the fear. You might fear that when I document this maybe it was my fault so I'll be held responsible, I might lose my certificate so let me just decide not to document it. If I'm called then I can say no no, it didn't happen. Because I didn't document, there is no evidence." (P 3)*

A nurse explained that they feared being tagged as incompetent, side-lined or punished by the ward in-charge:

> *"It's like you are reporting yourself that you have done something wrong especially where the nurse is directly involved in the incident. The in-charge might lose confidence in you. So some of these things scare some of the nurses from reporting. These are some of the things that I think de-motivate us from writing." (P 6)*

> *"You might tell a colleague but might not go to the extent of telling your nurse in-charge. So you might confide in a colleague but not the in-charge who is the superior for fear of being punished" (P 4)*

Some of the participants cited lack of feedback from the hospital management as a factor that inhibits reporting of adverse incidents.

> *"We don't get the feedback. If you take the incidents book you'll see a lot of adverse events that have been documented but there are no records of the outcome and the approaches that were used to solve this issue or guidelines to apply if they should happen again." (P 5)*

Discussion

The study revealed medication error as the most common adverse event that is reported by the pediatric nurses. This finding is consistent with that of Walsh et al. (2005).

This study suggests that despite the nurses' high level of awareness of responsibility to report adverse events, under-reporting persists and it is a huge challenge which the hospital management should deal with. This is supported by results from a study by Lawton and Parker (2002).

Findings from the participants' narratives showed that adverse events reporting is most likely when the incident could have a dire consequence for the nurse's own health. This is contrary to the findings of Lawton and Parker (2002) whose study revealed that nurses would most likely report adverse events when the outcome for the patient is bad.

Our findings, in concert with other studies (Blair & Smith, 2012: Evans et al. 2006: Cohen, 2000) suggest that fear of being reprimanded, lack of feedback, forgetting to make a report when the ward is busy, the incident book taking too long to complete and a belief that the incident was insignificant were major barriers to adverse events reporting for nurses in this study.

Conclusion

Adverse events were under-reported in this study. A multi-pronged approach is therefore required to overcome this challenge, taking into cognizance the factors that affect adverse events reporting.

Recommendations

Participants pointed out the need to address some of the fundamental issues they raised in the study, particularly those that would deal with the barriers and improve nurses' documentation of adverse events. Generally, they stated the following:
- Simplify the incident book by having a pre-designed form to reduce the volume of writing.
- Provide feedback to the nursing staff on strategies to curb recurrence.
- Organize in-service training on adverse events reporting to help nurses identify what constitutes an adverse event.

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