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Shared responsibility for electronic records: governance in perinatal data entry

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Abstract

This paper presents research undertaken as part of a larger research project to examine the factors that influence midwives when entering perinatal data. A grounded theory methodology was used to undertake qualitative interviews with 15 participants from 12 different hospitals across Queensland, Australia using three different systems for perinatal data collection. The findings surrounding accountability are presented revealing that a shift in governance relating to responsibility and accountability is not occurring in midwifery units across Queensland. Without assignation of responsibility for entries and accountability for mistakes or omissions, perinatal data records can be left incomplete or inaccurate. Increasing use of electronic health records and creation of digital hospitals indicates these issues are highly relevant in planning for these services.

Disciplines

Medicine and Health Sciences | Social and Behavioral Sciences

Shared responsibility for electronic records: Governance in perinatal data entry

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Abstract. This paper presents research undertaken as part of a larger research project to examine the factors that influence midwives when entering perinatal data. A grounded theory methodology was used to undertake qualitative interviews with 15 participants from 12 different hospitals across Queensland, Australia using three different systems for perinatal data collection. The findings surrounding accountability are presented revealing that a shift in governance relating to responsibility and accountability is not occurring in midwifery units across Queensland. Without assignation of responsibility for entries and accountability for mistakes or omissions, perinatal data records can be left incomplete or inaccurate. Increasing use of electronic health records and creation of digital hospitals indicates these issues are highly relevant in planning for these services.

Keywords. Data quality, attitude to computers, midwifery, collaborative documentation, e-health, qualitative research

Introduction

Investing in e-health via computerisation of processes traditionally recorded on paper aims to increase accessibility to data and create savings in the tighter fiscal environments of modern healthcare [1-5]. One population data set recently moved to an e-health platform in Queensland (QLD), Australia that collects data to monitor the mortality and morbidity of mothers and babies, is perinatal data (PD), mandated for collection Australia wide. Midwives collect and enter this data using various software platforms over the course of a birthing woman's journey. A vast amount of data is collected by midwives during the perinatal period, often duplicated in various systems and on paper [6]. The need for governance in healthcare is widely acknowledged with its effective use acting to remove barriers and better allocate resources to enable change [7]. Research findings specifically focusing on accountability are presented here providing some insight into the hospital and birth centre midwives perception of responsibility for PD and the existing governance in this area.

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1. Method

This research utilised the qualitative methodology grounded theory (GT), inductive in orientation. The voice of the midwife was captured via one-on-one interviews and is important in determining what happens via provision of an experiential point of view [8]. Purposive sampling was used to interview participants (n=15) in line with GT methodology. Later, theoretical sampling was used to gather data from participants and to fill gaps in the developing theory. Participants held a variety of positions ranging from midwives to clinical nurse consultants and nurse educators. Adhering to GT methods, the sample size was not pre-determined but influenced by saturation of the data rather than a specific required number of participants to meet generalisable sampling requirements [9]. An opening question "What are the influences on midwives during the process of collecting and entering perinatal data?" was posed with discussion then guided to remain around this topic. Saturation of the data occurred when no new information emerged from interviews and the theoretical framework was sufficiently populated to explain the phenomena under study [10]. Ethical approval for the research was obtained from the University of Wollongong Human Research Ethics Committee (HREC no. HE12/112) with the research design adhering to the principals of justice, respect, merit, integrity and beneficence [11]. Data were analysed using the constant comparative method [9, 10] with NVivo 9 software utilised to assist with data organisation.

2. Findings

The findings presented here intentionally focus on the words used by the participants, grounding these findings in the data, true to GT methodology. The conventions of 'P' for Participant and 'I' for Interviewer are used. The element accountability emerged from this research accentuating the need to provide governance in the entry of PD. Accountability is informed by data from both responsibility and entering PD for others.

2.1. Responsibility

Midwives experiencing a sense of responsibility for the PD of the mothers and babies in their care emerged as a theme regarding the process of entering PD. A participant exemplifies this in the following statement:

...and because we are a small unit that has a lot of staff, if we get one of those shifts where everything just goes nuts, you might find that the next day someone will sit down and... I sit down and go through and check all the PD and just make sure everything is up to date.

Personalising responsibility for the PD entry of women in their care and at times the PD for other women they have not directly cared for emerged as a finding. Participants believed there was an underlying requirement that the PD entry for women in the care of a particular midwife would be completed by that midwife or passed on to the next midwife caring for the woman at the end of a shift. However, there was no follow up for incomplete PD and midwives did not sign off on completion of the PD, leaving it unclear who completed it. At times, participants described how PD was found to be incomplete on discharge and there was no clear recognition of whose job it

was to ensure it was done. This lack of governance reduces the way in which responsibility for the data is felt. An example of several participants expressing this is:

Because if someone felt they were being directly held responsible for that data input they would ensure and take more care that is was accurate.

Especially if no one is... can seen to be held accountable for the data input. No one knows. When I've said "Do you know who put the PD in for this lady?"(the response is) "No, No".

It's hard to work out because everyone's got access to it. You don't really know who's... it doesn't say that "so and so" put this information in and "so and so" put that in. You just wouldn't know.

Should a birth occur close to the change of shift, generally the PD entry will be handed to the midwife coming on. Despite this accepted practice, some participants communicated that they do not readily pass on their PD entry, even if a woman in their care births as their shift is coming to an end. A participant communicated that alternatively in their unit, they leave it for the midwife who was present at the birth suggesting a unit-wide acceptance of personal responsibility for the PD of the women in each midwife's care.

And most people here do leave it for the person who was there at the birth too, so unless they are off on a holiday or something and you've asked somebody – could you look at that? I haven't had a chance to do it. So generally we do leave it for the ones who have actually attended the birth.

This sense of responsibility for PD entry for the women and babies in a specific midwife's care, as well as a concern for the accuracy of the data entered in those records implies accepting accountability for that record. However, the presence of governance at an organisational level enforcing this appears to be lacking.

2.2. Entering Perinatal Data for Others

Accountability for PD is transferred by the process of entering PD for others. Reports of passing on data to someone else, as well as entering data for casual or agency staff who either do not know the system in use or do not have login access, suggests a shared responsibility for entering data by all midwives. This was an accepted and common occurrence among participants.

Well you really are supposed to make time to do it but if it's really, and sometimes it is just so busy, well then you'd hand it over to someone. And you know, say put a note on it, say that's what needs to be done.

In birth suite sometimes if the girls are extremely busy and they don't have time to do it, someone will be allocated to do the PDs that haven't been finished.

However, some participants also reported the frustration that entering data for others could cause.

If you don't do it then one of the other colleagues has got to do it, so if that's ever happened to you, then maybe that's a bit of a learning curve not to leave it because you know the buck's got to stop with someone.

In this case, responsibility for accurate data is still clearly communicated by participants but rather than a personal responsibility by the midwife who was providing direct care for the mother and baby during the events to be entered, it is taken on by whoever has to enter the data. Participants describe this frustration:

P: So sometimes the poor discharge midwife will go to do it and there won't be anything entered so she has to start from scratch

I: And how do you feel about that?

P: People get very annoyed. Yeah I mean, because I've done so many it doesn't take me long. So I think I've just accepted that that's what happens.

Participants suggested that often this data was difficult to locate and took longer to enter.

If all the forms hadn't been sorted out correctly, to begin with, you know like if she's a negative blood group or any complications, it would take a long time.

When casual staff are working in maternity units and are required to enter PD for their mothers and babies, in most cases other staff had to enter the data for them. This is particularly relevant in units who have a Health Information System (HIS) where PD is extracted from the electronic health record (EHR) for a mother and baby.

Participants reported being locked out of the system for incorrectly entering their password, and the existence of a time lag of sometimes days, until reinstated with a new password. During such times, password sharing was a seen as a solution by midwives to be able to continue the mandatory job of entering PD. This means when an audit of PD occurred, login details did not necessarily equate with the actual midwife who entered the data. Some midwives had a clear understanding of this as a risk, but others did not.

And so you think you're doing somebody a favour by logging in for them but you know it wouldn't be an accurate account of who had input it.

I don't like asking the other girls to put their details in because if I enter something in on someone else's password, their name comes up and then… if there was anything that was incorrect…

Often when agency or casual staff worked on a unit without password access, another midwife would log them in. Regardless of the implications demonstrated by the above examples, all participants reported either password sharing themselves or seeing this practice occur in their work units.

Figure 1. Accountability informed by themes – responsibility and entering perinatal data for others.

3. Discussion

Discourse in the literature suggests "Users, many of whom generate the data in the first place, need to take more accountability for the quality of the data … for it to be of value" [12]. The research reported on in this paper, asserts that governance needs to be implemented throughout healthcare institutions in QLD to impart systematic responsibility for entry of PD. Furthermore, responsibility in relation to PD entry must be fully accepted by midwives who are then held accountable for the consequences of the outcome of that entry.

The findings of this research suggest that governance via assignation of personal responsibility for PD entry to midwives is absent. The responsibility assignment matrix

is considered effective in assisting with the task of identifying roles and responsibilities and communicating levels of authority in ICT governance [13]. When the system of responsibility fails, role confusion sets in leading to out of balance workloads, blaming of others for not getting the job done, lack of action and poor morale. Other research identifies that the presence of an accountability system tends to ensure that all stakeholders follow procedures correctly [14]. A lack of such a system in regard to PD entry creates opportunity for inconsistency between individual midwives' data entries as well as across units. These findings strengthen the literature as described by Lluch [15] who, in a systematic review, found that liability and accountability concerns have not yet been addressed in most healthcare systems.

It is reported in the field of research into computer supported cooperative work, that tension exists when an information object is shared between multiple workers in relation to unevenly distributed workload [16, 17]. Recent research evaluating a shared patient 'Problem List', as a mandated component of an EHR, identified similar issues of frustration among users relating to forced collaboration, leading to suboptimal utilisation of the tool stemming from a deviated understanding of its purpose between different users [17]. Such collaborative documentation is a standard feature of the EHR and with the increasing use of this technology, will become standard practice in environments utilising these tools. Similarly, PD records are accessed and changed by many different users over the time they are active. They exist as collaborative documents without clear identification of who is responsible for each component.

The fact that participants were willing to admit they shared passwords and observed others doing the same, suggests the practice is widespread and that there is little understanding or acknowledgement of the breach of security occurring with this practice. Other healthcare institutions report password-sharing finding that the number of passwords as well as the requirement of changing passwords regularly was seen as a nuisance factor by staff [18]. Streamlining of passwords is recommended to minimise frustration [19]. Research has also found recalling one's password to be a factor in creating negativity to the use of ICT in healthcare [20, 21]. Sharing passwords creates the problem of not being able to track who has entered what data, should a system of individual accountability be instated.

4. Limitations

This research is not without limitation as this study utilised a small purposive sample and use of a methodology that prevents results being generalisable to the midwife population at large or other computer systems for population data collection. Further research to test the findings of a large population using quantitative methods would strengthen these results.

5. Conclusion and Recommendations

Collaborative documentation as instigated via computerising processes that were previously conducted on paper, creates new barriers to effective recording of information in healthcare. Governance designating personal responsibility and calling users to account for their data entry is required in relation to PD entry. Furthermore, professional development regarding the appropriate use of passwords as well as timely

password replacement once a user is locked out, needs to be considered in an effort to stop the practice of password sharing. However, without password sharing, when users are locked out of the system, the resulting task of entering PD falls to others taking more time and occurring with less care of completeness and accuracy. Accurate PD collection is a responsibility of midwives and ensuring such, is a governance issue. Midwives are concerned about the accuracy of PD entries for the women and babies in their care [22]. It is recommended that governance from an organisational perspective be required to ensure midwives can do this to the best of their ability.

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