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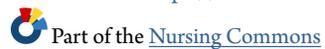
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The identification of the role and competencies of the graduate nurse in recognising and responding to the deteriorating patient in an acute ward environment: A mixed methods study

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## **Chapter 7**

### **Qualitative Data Collection and Analysis**

#### **Introduction**

The previous chapter presented the findings from the quantitative phase two of the study. In an explanatory sequential approach to mixed method methods the quantitative phase precedes the qualitative phase. Thus, this next part of the study, phase three, uses a qualitative stance. It will provide further insight into the factors influencing the role and competencies of the GRN in managing the deteriorating ward patient. The chapter discusses the recruitment of participants for focus group interviews, which were aimed at exploring in more detail findings from phase two. The chapter will highlight some the participants' statements in evidence of the findings.

#### **Data collection methods**

##### **Permission & consent.**

Gaining permission to recruit participants for the focus group interviews was complex and time consuming. Initially an approach was made to the research department of both hospitals to ascertain the process for gaining permission to conduct the research. Following this communication, an official application was made to the required Human Research Ethics Committees (HREC) from both of the hospitals to be used. Several briefing meetings took place in the research department for both hospitals. The aims of the study, along with the confidentiality and consent arrangements, were discussed.

The HREC approvals were received from both hospitals, which allowed the recruitment of potential participants to be to take place. This process involved contacting the Staff Development Nurse (SDN) from both hospitals. These nurses organised the graduate education programs. Information regarding the study, the objectives, together with the HREC permission was provided. It was agreed that focus groups could be undertaken at the end of pre-planned study days for the GRNs. In total three focus groups were planned; two were at the same private hospital and one at a public hospital. It was felt that this number of focus groups would be sufficient to provide a saturation point in data, where no new ideas should emerge (Bowen, 2008; Polit & Beck, 2012).

Several weeks prior to conducting the focus groups, the GRNs within the hospitals were given written information by the SDN outlining the study, the aims of the focus groups, confidentiality and anonymity arrangements, and a consent form (see Appendix 10). The GRNs returned their consent form to the SDN within a seven day period. A list of participants was then compiled by the SDNs and forward to the researcher.

### **Population & sample.**

The qualitative phase of the study focused on gathering data from participants working in an acute hospital setting within the Perth metropolitan area and enrolled in the GradConnect program. A homogenous purposive sample of GRNs was recruited for the focus group interviews. This technique was advocated on the basis that those chosen can provide the necessary data for analysis and provide the best answers to the research questions (Parahoo, 1997). Purposeful sampling is used regularly in qualitative research for the selection of information-rich cases related to the phenomenon of interest (Palinkas et al., 2015).

In total, there were three focus group interviews undertaken in the study, with 21 GRN participants. The first focus group interview was conducted in the private hospital setting and had seven (n=7) participants. The second was conducted in the public hospital setting and had nine (n=9) participants. The third was conducted in the

private hospital setting and had five (n=5) participants. There was some consensus that numbers of participants should be between 4 and 12 to ensure workability of the group (Liamputtong, 2011; Subramony et al., 2002).

The GRNs recruited represented both the public and private hospital setting. There was a mixture of age range and gender within the focus group interviews. The GRNs worked in a variety of clinical specialties within the hospitals including: medical wards; surgical wards; rehab units; oncology units; mental health wards; and theatres. All GRNs were currently employed and enrolled in the first year of the GradConnect program.

### **Context.**

The focus groups were undertaken within two acute care hospital settings within the Perth Metropolitan area. The first hospital was a 578 bed private hospital that provided a number of services including medical, surgical, obstetrics, gynaecology, rehab along with emergency admission capacity and a critical care unit. The hospital was part of the GradConnect program offering places to GRNs following completion of their undergraduate studies.

The second hospital was a 290 bed public hospital that provided numerous services including an emergency department, elective and emergency surgery, general medicine, mental health, obstetrics, gynaecology, rehab and a critical care unit. The hospital was also part of the GradConnect program, offering places to GRNs following completion of their undergraduate studies.

### **Focus group interviews.**

The primary goal of focus groups was to utilise the interaction of data, to increase the depth of enquiry and uncover aspects of the phenomenon that would otherwise be less accessible (Freeman, O'Dell, & Meola, 2001; van Eyk and Baum, 2003; Lambert and Loiselle, 2008). Using this method of data collection, constructs could be expanded and the factors influencing GRNs role and competencies in managing the deteriorating patient could be explored in more depth. The focus groups were designed to obtain

GRN perceptions of the subject area through discussion, and in a setting that was non-threatening (Burns & Grove, 2002; Liamputtong, 2011). The main purpose of using focus group interviews was to draw upon the participants' experiences and reactions in a way that was not be feasible using the questionnaires (Liamputtong, 2011).

Focus groups are viewed as particularly useful when there needs to be a degree of consensus on a given topic (Morgan, 1997). The group is 'focused' as a collective by debating, talking to one another, asking questions and commenting on experiences and points of view on an issue (Doody, Slevin & Taggart, 2013). Focus groups capitalise on the interaction occurring in the group, stimulating the expression of attitudes and opinions, in a supportive and empowering environment (Wood et al., 2004). The focus groups were conducted in an informal setting in familiar surroundings with colleagues enrolled in the same graduate program. This fostered trust and openness and generated insightful discussion around the questions.

The focus group design was intended to elicit information from the GRNs, using semi-structured questions facilitated by the researcher. It was important for the facilitator, to use group dynamics and interactions to gain information, and to keep the participants on track ensuring they all were given an opportunity to contribute (Doody, Slevin & Taggart, 2013). The intention of the focus groups was to clarify a number of findings from the quantitative questionnaire data relating to factors impacting the GRNs in their clinical role, competence and provision of intervention. The focus groups were also intended to explore ways to improve the GRNs' capabilities.

The focus group questions were designed in combination with the literature related to the GRN and clinical deterioration and the results from the phase 2 quantitative questionnaires. The questions were framed to clarify the use of clinical competencies in managing patient deterioration and explore the factors that influenced the GRNs current role and ways to improve GRN performance. This information was valuable in making recommendations from the study. The questions used to guide the semi-structured focus groups were as follows;

1. How would you define clinical deterioration?

2. Is clinical deterioration easy to detect in the ward patient?
3. What factors impact the detection clinical deterioration?
4. What is your role when dealing with a deteriorating patient?
5. What factors impact your role in assessing and managing the deteriorating patient?
6. What clinical intervention do you provide to the deteriorating patient?
7. What factors impact your ability to provide clinical intervention to the deteriorating patient?
8. Is competency important when managing the deteriorating patient?
9. At what level(s) are you currently working in relation to the chain of response (show definitions of COR levels)?
10. How do we improve graduate nurses' capabilities to assess and manage the deteriorating patient?

Each focus group was conducted following a pre-arranged study day for the participants. It took place at the conclusion of the study day. The rooms used for the focus groups were well-equipped teaching rooms. They had adequate seating for the participants along with tables and whiteboards. The researcher provided refreshments and snacks for the participants. Each focus group was conducted over a period of 40-50 minutes, and were audio recorded on two electronic digital recording devices in case one did not record correctly. The audio files were downloaded and stored securely on a password protected computer system. Three focus groups were conducted to seek the stage information became repetitive, reaching the point of saturation (Bowen, 2008; Polit & Beck, 2012).

During the focus group facilitation, the researcher made notes of the participants' responses on a whiteboard. This procedure provided a useful summary of

the data and was reviewed by the group at the end of the session. A digital photograph of the whiteboard notes was taken for data analysis, which was downloaded and stored securely on a password protected computer system.

## **Data Analysis**

Initially the data from the focus group audio recordings were transcribed verbatim. This produced a significant amount of data to be analysed. Thematic analysis was used to identify and interpret patterns of meaning (Braun & Clarke, 2006).

Initially the audio recordings from the three focus groups were transcribed using Microsoft Word (2013) by the researcher, which generated 90 pages or 26,000 words of verbatim transcript. The transcripts for each focus group were separated and given a code to distinguish between the focus groups and to protect the anonymity of participants. An example of the individualised codes was: focus group 1 (FG1); focus group 2 (FG2); and focus group 3 (FG3). Each transcript was read and reread together with the notes from the whiteboards. This process ensured a high level of familiarity with the data and enabled the initial coding to be undertaken.

Initial coding involved identifying interesting and meaningful statements from the participants that explained their experiences of dealing with clinical deterioration within their clinical practice. As the audio recordings were transcribed and participants spoke, they were assigned an individual code. For example, in focus group 1 (FG1) there were seven participants. As they made their first comment on the audio recording, a code was assigned. The first participant to comment was assigned the code FGP01, the second participant making comment was assigned the code FGP02.

These significant statements were highlighted within the transcript and coded as points of interest. These highlighted points were documented together on a separate document where they could be reread more easily. The initial transcripts and codes were reread and refined until no further codes were identified.

The next step involved searching for themes within the codes. A theme is seen to represent some level of meaning or patterned response within the data, representing a level of importance within the data (Braun & Clarke, 2006). Similar codes were placed together in groups for further analysis and refinement. From this preliminary procedure, around 29 rudimentary themes were identified and included: knowledge and knowing; support in practice; confidence levels; fear and uncertainty; learning opportunities; competency and practice; and professional development.

A deeper review of the 29 rudimentary themes allowed for a collapsing of themes, generated a number of main themes with underlying sub-themes. The intent was to establish distinct and separate themes and eliminate redundancy. A series of mind maps were drawn to identify similarities and linkages between themes and sub-themes. This process produced several thematic maps that were reviewed and adjusted multiple times to ensure they were relevant and distinct. The refinement of themes and sub-themes involved frequent referral to the overarching research questions. This was to ensure that findings were relevant and presented in a way that would clearly answer the research questions (Braun & Clarke, 2006). This process of review and refinement of the themes established four main themes and 16 sub-themes (see Figure 52).

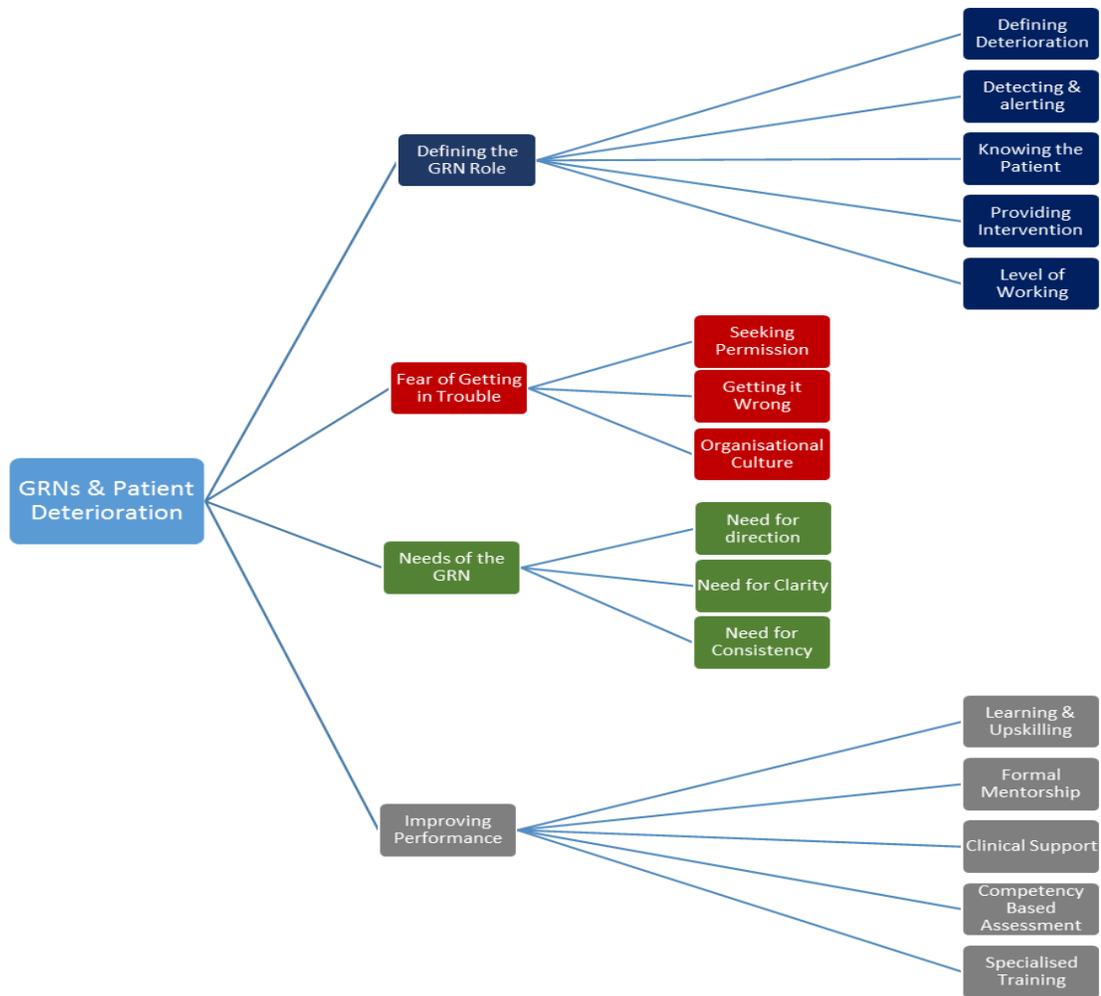


Figure 52. Qualitative findings thematic concept map.

The final step in the thematic analysis process was to write the report and present the qualitative finding in logical and convincing manner. An explicit discussion of the focus group thematic findings will be provided in Chapter 8 of the thesis. Within Chapter 9 of the thesis, the qualitative findings will be combined with the Phase 2 quantitative data findings and the contemporary literature to provide a thorough synthesis of the evidence and to suggest meta-inferences to answer the research questions posed in the study.

### **Trustworthiness of qualitative data.**

Within the realm of qualitative research, the quality of the research is judged by the data trustworthiness (Polit & Beck, 2012). Instead of focusing on reliability and validity, qualitative researchers substitute the term data trustworthiness. There are several factors that contribute to the trustworthiness of the data and these include credibility, dependability, confirmability and transferability (Connelly, 2016; Lincoln & Guba, 1985; Shenton, 2004). The processes used to ensure trustworthiness is outlined in the following section of this chapter.

#### **Credibility.**

To establish credibility, phase 3 of the study was conducted using established qualitative methods to collect narrative data to explain the GRN role in more detail. This decision was congruent with providing the descriptive data required and was appropriate to producing more credible data (Shenton, 2004). It has been argued that credibility is one of the key goals of qualitative research and relates to confidence in the truth of the research data and the interpretations made (Polit & Beck, 2012; Shenton, 2004). Triangulation of data was achieved by amalgamating quantitative findings to guide the development of the questions for the semi structured focus groups. Alongside this, site triangulation was achieved, having involved participants from several organisations, reducing the effect of particular local factors peculiar to one institution, and improving the credibility of the data (Shenton, 2004).

Member checks are considered the most important provision that can be made to increase a study's credibility (Guba and Lincoln, 1988). This aspect was done in each of the focus groups with participants being asked to read and agree to the accuracy of the summary notes written on the whiteboards.

#### **Transferability.**

Transferability relates to the potential for extrapolation, how the findings may relate to other similar situations, populations or settings (Polit & Beck, 2012). Qualitative researchers need to use sufficient description to show that the research study's findings

can be applicable and this is done using thick description (Shenton, 2004). The following chapter of the thesis provides such a description.

Phase three of the study detailed information to explain the processes used, the decision making made and the data collection and analysis methods utilised. Provision of these details ensured that those reading the study have adequate information to consider the transferability of the findings to similar context, situations or populations.

### **Dependability.**

Dependability is the extent that the study could be repeated by other researchers and that the findings would be consistent (Polit & Beck, 2012). In order to address the dependability of the Phase 3 research, the processes within the study have been reported in detail, enabling a future researcher to repeat the study (Shenton, 2004). The research design, the operation detail of data collection and analysis and the findings have been reported in full, thus meeting the requirements to ensure dependability.

### **Confirmability.**

Confirmability is the degree of objectivity in the research study's findings, that the findings are based on participant responses and not potential bias or personal motivations of the researcher (Polit & Beck, 2012). Several processes were used to demonstrate confirmability of the Phase 3 data. Firstly, the use of data triangulation from the Phase 2 data will reduce potential investigator bias in the Phase 3 results. Secondly providing a rich and detailed explanation of the methods used and the decisions made in data collection and analysis will provide the reader with adequate information. This will allow the reader to follow an "audit trail" of procedures and decisions and thus make an informed choice as to the applicability of the data and whether it should be accepted.

## **Summary**

This chapter has provided a discussion of the processes used in the qualitative phase of the study including the method used in the recruitment process. The sample of GRNs was discussed and the focus group interview method was highlighted. The data analysis of the focus group interview will be detailed together with some extracts of participants' statements to provide evidence of the themes identified from the focus group interviews.