1. Introduction

This chapter introduces the report of a six-month study, conducted from late 2002 into 2003, that aimed for a panel of district nurses within four district nursing organisations in Australia to collectively identify and prioritise contemporary district nursing research priorities. Firstly, the objectives of the study and the research questions are presented, and then the background coupled with a review of relevant literature is discussed. To follow, the use of a Delphi approach as a survey method and the philosophical underpinning regarding paradigm of inquiry are justified, the evaluation criteria detailed, and anticipated outcomes listed. Subsequent chapters of the report will sequentially focus on method, results and discussion (inclusive of recommendations). A reference list and extensive relevant appendices are attached.

Objectives

The objectives of the study were:

1. To identify the top ten research priorities for district nursing in Australia according to a panel of district nurses.
2. Additionally, to identify the top research priorities for district nursing in Australia for specialist strands of district nursing.

Research Question

What are contemporary district nursing research priorities according to a panel of Australian district nurses?

Background & Literature Review

The quest for evidence-based nursing practice is a global phenomenon with best practice guided by evidence becoming the standard for nursing throughout all specialties, including district nursing. To date, there has been little overall research of district nursing phenomena in Australia to provide evidence for best practice, although programs of research applicable to district nursing are underway in most Australian states. Some applicable research is surfacing from other countries, such as the United States (US) and the United Kingdom (UK), but this is minimal compared with most other specialties of nursing. In this embryonic stage of developing evidence for district nursing, a systematic approach to what foci need to be researched will provide a useful guide for planning applicable research.

The concept of generating priorities for nursing research is not new, with nursing literature examining the merits of such. The identification of research priorities by nurse clinicians can assist in planning research that is of interest and relevance to nurses and their practice, with their involvement in the process of identification, assisting to give clinicians a sense of ownership (Carney, McIntosh, & Worth, 1996). Therefore, it is hoped that research will be targeted toward the most clinically relevant of research foci and that the clients of district nursing care will ultimately gain from the results of such research.

Many studies have been conducted in recent years, predominantly in the US and the UK, seeking to identify the research priorities of nurses, as exampled by Bartu et al (1993), Bell (1997), Bowles (1999), Chang & Daly (1996), Chang & Daly (2000), Daly et al (1996), Edwards (2002), Fitzpatrick et al. (1991), Griffin et al. (1992), Jones et al (1989), Lynn et al (1998), Monterosso (2001), Moreno-Casbas, Martin-Arribas, Orts-Cortes, & Comet-Cortes (2001), Nappier et al (1990) and Salmond (1994). These cited studies have two common characteristics: firstly each utilised a team of nurses to identify the priorities, and secondly all used a Delphi approach as the method for the study.

For instance, Lynn, Layman, & Englebardt (1998) sought to determine nursing administration research priorities in the US by undertaking a national Delphi study as they considered that the existing nursing administration research had been sporadic and unfocused - probably related to the restricted group from which priorities had been derived. They opined that research actually focused on priority areas identified and prioritised by experts in nursing administration would prevent a 'fire-stomping' approach characteristic of US-based nursing administration research. This reasoning is common as a prompting factor for such studies, as also exampled by Nappier, Stanfield, Simon, Bennett, & Cowan (1990) identification of the top ten clinical research priorities according to the consensus of nurse clinicians in a large US teaching hospital.

Only a handful of Australian studies have been reported that sought in a systematic way to identify the research priorities for nursing according to clinicians. Some that have done so using a Delphi approach include Annells et al. (1997), Bartu, Mcgowan, Nelson, Ng, & Robertson (1993), Bell, Daly, & Chang (1997), Daly, Chang, & Bell (1996), Jones et al. (1989). Some Australian studies have potential indirect application to district nursing. For instance, Jones et al. (1989) sought to determine the research priorities of community nurses in Western Sydney. Chang & Daly (2000) sought to identify clinical research priorities in aged care nursing that included community based aged care nursing. Annells et al. (1997) conducted a South Australian-sited study that sought the opinions of 233 experienced nurses and midwives within seven clinical strands concerning nursing and midwifery research priorities, one strand focussing on community nursing. All of these studies applied a Delphi approach technique but none specifically focused on district nursing research priorities.

There has been little systematic research effort to identify research priorities for district nurses. In the early nineties in the US, Albrecht & Perry (1992) conducted a study to identify priority research questions regarding home health care nursing. Their justification for this was twofold – to provide direction for clinicians in determining which research questions needed to be addressed first, and to determine which research projects should be allocated funds. This study used 'brainstorming' meetings to identify the research team's personal opinion about required research, which resulted in a list of forty suggested research foci that were then formed into a survey questionnaire distributed to home health care nurses in 30 US States.

More recently in the US, a study using a Delphi approach has been conducted seeking research priorities from the perspective of home health care nurse clinicians. This study has been initiated by the Research Committee of the Home Healthcare Nurses Association in the US (Madigan, 2002). The clinicians are primarily members of the Association listed on the Association's listserv but also include other interested home nursing clinicians. The results of this study, contextualised to the US health care system and culture, are yet to be reported (correspondence, Elizabeth Madigan, April, 2003).

District nursing organisations in some Australian States have been seeking to identify research foci originating from practice issues by varying means. For instance, the Victoria-sited RDNS service has a process overseen by a Best Practice Review Committee that encourages clinicians to identify and suggest foci for research. This process incorporates clinical leadership groups who also usefully suggest research foci.

However, there has been no reported research study seeking to identify research priorities for district nursing in Australia at either a local or national level.

Use of a Delphi Approach

This study was a form of survey labelled as 'Delphi' in style, which is a process for obtaining judgements from a panel of experts that involves the systematic collection and aggregation of informed opinions from a group on specific questions or issues (Reid, 1988). This method is commonly known as 'Delphi technique', but recent methodology debate suggests rather the use of the

term 'Delphi approach' (Mead & Mosely, 2001), because an assessment of the application of the method in contemporary research indicates considerable variation in process (Keeney, Hasson, & McKenna, 2001) – although adherence to the classic set of procedures can be classified as 'Delphi technique'. Overall, though, there no longer appears to be just one technique, but a range of process elements that follow some basic principles.

According to Beretta (1996), the method's prime characteristics (basic principles) include:

- the use of a panel of 'experts' on the topic as respondents;
- communication in the form of questionnaires;
- seeking consensus of opinion;
- preserving the anonymity of respondents;
- the use of iteration and controlled feedback.

Originally developed by the 'Rand Corporation' in the 1960's for use in technological forecasting, the Delphi approach has been adopted widely in nursing, medical and allied health services research (Hasson, Keener, & McKenna, 2000). It is 'particularly valued for its ability to structure and organise group communications' (Powell, 2003, p. 376).

Essentially, the Delphi approach utilises repeated rounds of questionnaires, including feedback of earlier round responses to participants, in order to take advantage of group input while avoiding the biasing effects possible in face-to-face meetings. The first round is application of an unstructured questionnaire aiming to gain responses about a broad subject, question or questions, and subsequent questionnaires are derived from summarised findings from previous questionnaires. Panellists respond anonymously, thereby preventing the identifiable linking of specific opinion with any individual. This anonymity promotes panelists sense of freedom to express opinions without negative repercussion. Panel members are encouraged to revise previous responses in subsequent iterations after reviewing new information submitted by other panelists. This multiple iteration process is used as a means of accomplishing supposed group consensus of opinion.

Usually, three rounds of questionnaires are required and the panel needs to be committed and have the qualities required to offer a worthy opinion, rather than be a representative sample, randomly selected (Powell, 2003). To ensure commitment, self-selection sampling of panel members is acceptable. When the study focus is about clinical issues, clinicians with expertise in that area of speciality are deemed to be most appropriate as panel members (Jones & Hunter, 1995).

The Delphi approach, which focuses on incomplete states of knowledge or understanding that can be addressed through survey, is a widely utilised method of identifying nursing research issues and achieving consensus on priorities. (Lindeman, 1975) pioneered the use of Delphi for this purpose, but more recent examples include studies by Barrett et al (2001), Bartu et al (1993), Bell et al (1997), Bowles (1999), Chang & Daly (1996), Chang & Daly (2000), Daly et al (1996), Edwards (2002), Fitzpatrick et al (1991), Griffin et al (1992), Jones et al (1989), Lynn et al (1998), Monterosso (2001), Moreno-Casbas et al (2001), Nappier et al (1990) and Salmond (1994).

Whilst this method has been subject to criticism by some (Beretta, 1996; Crisp, Pelletier, Duffield, Adams, & Nagy, 1997; Hasson et al., 2000; Williams & Webb, 1994), according to a review of pertinent literature by Williams & Webb (1994) there is general agreement that it is particularly beneficial for:

- maintaining respondent anonymity;
- being relatively inexpensive;
- providing large quantities of data;
- allowing flexibility in its application and participation of large groups of people;
- eliminating confrontation that may occur with face-to-face meetings.

With these aspects in mind, the research team of this study selected use of the method for this study. However, the method is a Delphi approach as, for pragmatic reasons, only one round (Round 2)

provided in summary the reasons of panel members for responses to a previous Questionnaire (from Round 1), this being aberrance from classic Delphi technique.

Philosophical Foundation

In regard to the study's philosophy of inquiry stance, reality is viewed as multiple, localised, mental and social constructions. The district nurses on the panel are considered to each have their own constructed reality, which they can articulate. No one construction is considered more 'real' than the other, but a relative consensus at any point of time is possible and aimed for, even if this construction is subject to change in the future. It is considered that it is expert opinion being sought, not 'indisputable fact', which is congruent with the opinion of Powell (2003, p.381) regarding what are the 'findings' of a Delphi-type study.

Powell (2003) also emphasis that in this era of debate about postpositivist directions regarding inquiry, clarification about the epistemological stance directing choice of method elements and claims about outcomes, should be stated in reports of Delphi approach studies. Therefore, this report needs to clarify that the Delphi approach used for this study has been applied within a constructivist paradigm of inquiry. Consequent to the constructivist underpinning:

- Those responses which could be viewed as unique are valued, with all research foci suggested being presented within the report (in an appropriate appendix), and not only the final prioritised lists of research foci presented for consideration.
- Acknowledgment of the researchers' presence is implicit. There is awareness that aspects such as wording of questions, formatting of questionnaires, and especially the manifest content analysis of the Round 1 questionnaire responses, do influence outcomes. Objectivity is not an ideal and subjectivity is acknowledged. The research team is part of the inquiry process and therefore a different research team may have produced a product differing in some ways.
- Regarding the issue of rigour, the inquiry process decision-making is guided by evaluation criteria congruent with a constructivist approach and not criteria pertaining to the positivist paradigm (e.g. validity, reliability, and generalisability). There is awareness, however, that the reader of a report may select their own criteria for evaluating a study, as is their prerogative.

Evaluation Criteria

To ensure trustworthiness (rigour), the study processes were guided by evaluation criteria. Therefore, regarding:

Credibility - A study is enhanced when faithful descriptions or interpretations of human experiences are readily recognised by others who either share (or have shared) similar experiences or can recognise such experiences when confronted with written descriptions of them (the panel participants responded to each other's comments and/or prioritisations of research foci which arose from their own and the suggestions of others).

Transferability - Fittingness of the study and the ability of findings to have meaningfulness and applicability to contexts outside the research setting when viewed by others in terms of their experience.

Dependability – The study and its finding are made explicit and are auditable (that is, another researcher will clearly be able to follow the decision trail of the researchers).

Confirmability - Achieved when audibility, credibility and transferability are established.

Anticipated Outcomes

It was anticipated that through identifying and prioritising research foci relevant to district nursing in Australia, the following potential benefits would be gained.

Regarding Participants

- Encouragement of the district nurse participants to develop as reflective practitioners with inquiring minds regarding what evidence may yet be necessary to research so that best practice can eventuate;
- The priorities identified may guide the selection of foci for systematic reviews of evidence for district nursing, a check of how well disseminated to district nurses is pertinent evidence;
- Direction will be provided for the selection of clinically relevant research foci regarding district nursing;
- Satisfaction in knowing that their opinions and ideas are valued and that they have contributed toward research of practice-applicable district nursing knowledge.

Regarding Humanity

- Guidance will be given for the allocation of limited research monies for district nursing research;
- The facilitation of best practice by district nurses through prompting the pursuit of pertinent evidence for actions and interactions, thereby ultimately improving and enhancing the health status and well-being of community-dwelling Australians and potentially others internationally.

2. Method

Through presenting details of the study's method within this chapter, it is intended that the research processes employed are rendered fully transparent and that a decision trail commences to become discernible. Sequentially, the aspects of method presented and explained include the basic study design, timeline and timeline elements, research team composition and membership, ethical considerations, participant selection process and outcomes, data collection and analysis processes for each round of the study, discussion about the costs within the study, and finally the plan for dissemination of results.

Design

The study used a Delphi approach as a survey method for three rounds of questionnaires about the study focus. These questionnaires were directed to a self-selected sample of 320 district nurses who formed an 'expert' panel. A fourth round reported, in summary, the results of the study to the panel members.

Timeline

2002/2003	OCT		NOV				DEC				JAN				FEB				MARCH				APRIL			
WEEKS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Round 1																										
Q1 Circulation	■																									
Q1 Reminder			■																							
Q1 Analysis			■	■	■																					
Round 2																										
Q2 Formulation						■																				
Q2 Circulation							■																			
Q2 Reminder									■																	
Q2 Analysis									■	■	■	■														
Round 3																										
Q3 Formulation													■	■												
Q3 Circulation															■											
Q3 Reminder																	■									
Q3 Analysis																	■	■	■	■	■					
Round 4																										
Summary Circulation																									■	
Report Writing																						■	■	■		

Q1 = Questionnaire 1 Q2 = Questionnaire 2 Q3 = Questionnaire 3

Figure 1. Timeline for the Study

The study had a 6-month timeline. Round 1 commenced in late October 2002 and the last round (Round 4) was completed in April 2003. In order to facilitate the best possible response rate, panel members were requested to return questionnaires within one week, but reminder letters were sent to those who had not yet responded within two weeks. Figure 1 outlines the timeline for the process steps of the study.

Research Team

The research team comprised of:

Merilyn Annells RN PhD	Professor of Community Nursing, *La Trobe University* & Director, LTU Postgraduate School of Community Nursing, *Royal District Nursing Service Helen Macpherson Smith Institute of Community Health*, St Kilda, Victoria.
Tina Koch RN PhD	Director, Research Unit, *Royal District Nursing Service (South Australia),*Glenside, SA.
Gill Lewin PhD	Research Manager, *Silver Chain*, Osborne Park, WA
Jayne Lucke PhD	Research Coordinator, *Blue Care*, Toowong, Queensland
Monique DeRoche RN MN	Research Officer, LTU Postgraduate School of Community Nursing sited *at Royal District Nursing Service, Helen Macpherson Smith Institute of Community Health*, St Kilda, Victoria.

The four organisations, Royal District Nursing Service (RDNS), Royal District Nursing Service South Australia Incorporated (RDNS SA Inc), Silver Chain, and Blue Care, have in recent years formed an alliance to work collectively to inform the provision of quality and efficient district nursing services in the four states of primary relevance to the organisations – Victoria, South Australia, Western Australia and Queensland. Blue Care also provides nursing services to some parts of northern New South Wales.

The base for the conduct of the study was the LTU Postgraduate School of Community Nursing, *Royal District Nursing Service Helen Macpherson Smith Institute of Community Health*, St Kilda, Victoria. Professor Annells led the Research Team and Monique DeRoche was both project manager and research officer.

Ethical Considerations

Approval for this study was sought and obtained from the research ethics committees, or similar committee, in each of the participating district nursing organisations (see Appendices A, B, C & D). In addition, approval was also sought, and given by the La Trobe University Faculty of Health Sciences *Faculty Human Ethics Committee* (see Appendix E).

Approval to access staff at each of the district nursing organisations was also obtained from the appropriate senior officers within each district nursing organisation (refer to Appendices F, G, H & I). Through a process acceptable to each district nursing organisation, potential participants were sent, at their place of work, a Letter of Information and Invitation, including a Consent Form (see Appendix J). Because of the forwarding of these documents to the place-of-work, it was not necessary for the research team to access personal (home) addresses or the names of potential participants, thereby their privacy was maintained. The Letter of Information and Invitation outlined the purpose of the study, the potential benefits, how the rights of the participants would be maintained and invited participation in the study. If willing to participate, written consent was required through completion and signing of the Consent Form and forwarding of that form to the researchers along with the completed Round 1 questionnaire.

In giving consent, participants were assured that:

- Their anonymity would be maintained during all steps of the study, including any publications produced from the research;
- All data would be kept confidential;
- All data would be stored under lock and within a secure place for twenty years prior to destruction;
- Participants would be free at all times to withdraw their consent;
- Participants would be free at all times to refuse to answer questions;
- Participants could seek further information at any time from study investigators located in each of the participating agencies or from the chairperson of the La Trobe University Faculty of Health Sciences *Faculty Human Ethics Committee*.

During the study, data were stored in locked safe and secure computer files, and in hard copy form within locked safe and secure filing cabinets, located at the La Trobe University Postgraduate Clinical School of Community Nursing at Royal District Nursing Service Helen Macpherson Smith Institute of Community Health. Following completion of the study, data is continuing to be stored at the aforementioned location. Only the investigators have had, and continue to have, access to data. Raw data will be stored and preserved for a period of no less than twenty years, after which time, it will be destroyed by a process of confidential shredding.

Participant Selection

The population from which the sample was sought were all the Registered Nurses (Division 1 RNs in Victoria) employed as district nurses by the four district nursing organisations within the alliance previously explained, these organizations being:

- RDNS - sited in Melbourne, Victoria;
- RDNS (SA) – sited in Adelaide, South Australia;
- Silver Chain – sited throughout Western Australia;
- Blue Care – sited throughout Queensland and in some parts of northern New South Wales.

The first two listed organisations are essentially metropolitan/suburban sited, although RDNS (SA) does have one rural site. The latter two listed organisations have metropolitan/suburban and also rural-sited district nurses. The population numbered 2340.

The sampling method was non-randomised self-selection. All members of the population were invited to participate via a Letter of Invitation & Information, which included a Consent Form (see Appendix J). These were distributed to the population via their workplace. The district nurses accepting the request to participate were required to complete and sign the consent form, complete Questionnaire 1 (see Appendix K), and return both to the researchers in the supplied reply-paid envelope.

Those who accepted the invitation to participate became the sample for the study, thereby forming the ‘panel’ that participated in the following rounds of the study.

There was no predetermined sample size, however, this is acceptable within the Delphi approach method as primarily committed participants within a panel of people experienced in the focus of the survey (district nursing in this study) are required for successful completion of the survey. Self-selection was conducive to acquiring such a panel. Panel size for Delphi-type studies can vary considerably – one evaluation of panel sizes found variation from 10 to 1685 (Reid, 1988, cited by Powell, 2003).

From the invitations to participate forwarded to the population, 13.4% acceptances were received to initially provide a panel of 321 members, but one participant elected to withdraw from the study at an early stage (in Round 2), leaving a panel size of 320. Table 1 lists the population proportion of potential participants in each organisation, the number who accepted the invitation to participate from each organisation and what percentage that number is in regard to the proportion.

Organisation	Population - RNs employed	Sample - Number who agreed to become panel members	Sample as percent of population
RDNS	950	136	14.4
Blue Care	750	117	15.7
Silver Chain	407	37	9
RDNS SA Inc	283	29	10
Not recorded		1	.3
Total	**2390**	**320**	**13.4**

Table 1. Proportion of potential participants from each organisation and numbers plus percentages of the proportion who agreed to become panel members

Table 2 indicates the proportion of the 320 panel members from each organisation. This is also presented as a pie-chart diagram in Figure 2.

Organisation	Frequency	Percent
RDNS	136	42.5
Blue Care	117	36.6
Silver Chain	37	11.6
RDNS SA Inc	29	9.1
Not recorded	1	.3

Table 2. Proportion of panel members (n=320) from each organisation

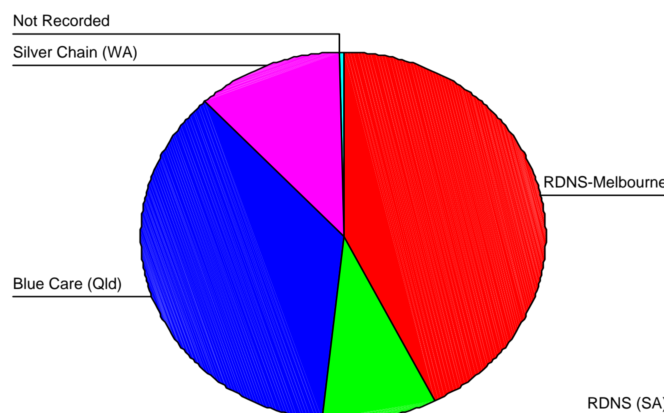

Figure 2. Pie Chart of proportion of panel members from each organisation

Data Collection and Analysis

The study consisted of four rounds. Data was obtained from three rounds of questionnaires and the fourth round provided a summary of results for panel members. Responses to the Round 1 Questionnaire were content analysed and formed the content for Round 2's questionnaire. Responses to that questionnaire were analysed and the most frequent responses formed content for Round 3's questionnaire. Each round but the first was posted directly to panel members. Reply-paid envelopes were provided with each questionnaire. Panel members were requested to return questionnaires within one week with reminder letters later forwarded, as necessary.

Descriptive statistics were calculated regarding data from Rounds 2 and 3, with the computer software package SPSS facilitating the analysis.

Detailed to follow are the process steps for each round of the study.

Round 1

As previously explained in previous sections of this report, through a process acceptable to each district nursing organisation, potential participants (N=2390) were sent, at their place of work, a Letter of Information and Invitation, including a Consent Form (see Appendix J). The Letter of Information and Invitation outlined the purpose of the study, the potential benefits, how the rights of the participants would be maintained and invited participation in the study. If willing to participate, written consent was required through completion and signing of the Consent Form and forwarding of that form to the researchers along with the completed Round 1 Questionnaire (see Appendix K).

Questionnaire 1 comprised two sections. The first section requested demographic details whilst the second section requested the provision of up to six suggestions for research foci considered to be pertinent to their practice of district nursing. Additionally, participants were asked to provide rationale for each suggested research focus.

Those who returned the questionnaire and consent form were accepting the invitation to participate and, therefore, became members of the panel (initially n=321, but this diminished to n=320 as one participant withdrew from the study before Round 2). Unfortunately, a number of questionnaires were returned without a consent form, thus were unable to be included in data as one organisation's ethics committees had stipulated that a completed consent form was required.

From the manifest content analysis of first round responses, 419 discrete research foci were identified, there being multiple similar suggestions of some foci. These foci were worded into research questions, the reasons provided for each summarised, and both the questions and summarised reasons were then listed for inclusion in the questionnaire for Round 2. Therefore, all suggested research foci and a synopsis of the rationale provided for each were included in the next questionnaire.

Round 2

An explanatory letter (see Appendix L) was forwarded by post with the questionnaire for Round 2 (see Appendix M) to panel members who were requested to indicate on a 4-point Likert scale their opinion as to the importance of each of the 419 suggestions. A Likert scale was used for responses so that quantification of results could occur. A 4-point Likert Scale was selected in order to avoid the possibility of some panel members selecting a central point repetitively as may occur when respondents are provided with a scale that has a mid-point (e.g. 3 or 5-point scales. The points on the Likert scale equated to:

- Not important,
- A little important,
- Very important,
- Critical.

Unfortunately, because of the large number of research foci suggested, and the need to provide a synopsis of reasons provided for the suggestions, the questionnaire was rendered lengthy – 15 pages in total. The researchers conferred and agreed that due to this excessive length, it was not pragmatically feasible to include space on the questionnaire for explanatory comments about why the Likert scale response was being chosen for each listed research question. Already, potentially too much was being asked of the panel members in regard to time-commitment for responding to this questionnaire. Although erring from classic Delphi technique, this decision was made with the belief that the quality of the study would not be detrimentally diminished, as feedback would still be provided in the questionnaire for Round 3 by presenting:

a) A list of emerging prioritisation from Round 2 (i.e. a top percentage of tentatively prioritised research questions);
b) This top percentage of research questions in order of emerging priority (frequency of response).

Therefore, careful and due consideration was given within this decision making about balancing the requirement for an adequate response rate with the provision of adequate feedback of decision making regarding choice of items in the previous round.

The response rate to Round 2 was 65.4%, as listed in Table 3.

Round	No. of questionnaires distributed	No. of questionnaires returned
Round 2	321	210 (65.4%)
Round 3	320	236 (73.8%)

Table 3. Response rate of panel members to Rounds 2 & 3

One respondent requested to be withdrawn from the study in Stage 2.

Some participants returned their completed questionnaire with comments about the length of the questionnaire and the considerable amount of time required to complete the questionnaire. As could be expected with such a lengthy questionnaire, some questionnaires were incomplete, this amounting to 23% of returned questionnaires with responses, as listed in Table 4. A failure to respond to an occasional item amongst the 419 items was the most common type of this phenomenon (e.g. sporadic error), although some responding panel members missed a page or pages (e.g. on the back of another page) and some may have grown weary or ran out of time and did not complete the questionnaire although earlier items were responded to. The percentages are listed in Table 4. Nevertheless, the response rate of 65.4% for such a lengthy questionnaire could be viewed as indicative of most panel members' strong commitment to the study.

State of completeness of responses to the questionnaire	Number of returned questionnaires with state of completeness	Percentage of returned questionnaires with state of completeness
Completed all items	162	77%
Some missing items	20	9.5%
Missed a page or pages	14	6.66%
Failed to complete latter items	14	6.66%
Total	**210**	

Table 4. Number and percentage of missing responses to items within the responded-to questionnaires for Round 2

Using SPPS, the frequency of responses for each of the 318 items within the questionnaire for Round 2 were calculated.

Round 3

For the formulation of the questionnaire for Round 3, the research team agreed to condense the list of research questions to the top 15%, as analysed from the results of the Round 2 questionnaire. This was decided by an evaluation of what top percentage would ensure that emerging research priorities were listed that included research questions applicable to many of the specialty strands. Therefore, 68 research questions were listed in this questionnaire, in diminishing frequency of response regarding importance to district nursing.

An explanatory letter (see Appendix N) was forwarded by post with the questionnaire for Round 3 (see Appendix O) to panel members who were requested to indicate on a 4-point Likert scale their opinion as to the importance of each of the 68 research suggestions.

The questionnaire for Round 3 was forwarded to all 320 participants, not just to those who responded to the questionnaire forwarded in Round 2. The reasons for electing to distribute the questionnaire to all panel members were that:

- The panel could be perceived to remain a panel until participants informed us officially of their withdrawal;
- In any forum, some participants may not contribute their ideas and opinions as items are discussed but may choose to vote in the final step of making a decision;
- Some participants apologised for being on leave when the questionnaire for Round 2 was distributed but had asked to remain active participants.

The questionnaire for Round 3 consisted of 68 items and panel members were requested to rate the level of importance of each research question on the some 4-point Likert scale as selected for the questionnaire in Round 2. As previously explained, this questionnaire for Round 3 could not contain respondents' rationale for the emerging prioritisation, as this had not been requested in Round 2.

The response rate to Round 3 was 73.8%, as listed in Table 3.

Once again, using SPPS, the responses were analysed according to frequency. Following analysis of responses to the questionnaire in Round 3, the overall top ten research foci for district nursing in Australia according to district nurses could be listed. The prioritised responses to the 68 items of Round 3 were also grouped into categories according to specialty areas of district nursing practice, aspects of general nursing practice, or areas potentially impacting upon care delivery and service provision.

Although not an earlier identified objective of the study, it was also decided to list the top ten research priorities as identified by panel participants within each of the organisations involved. The reason for this was that almost half of the panel members are employed by one organisation (RDNS) and therefore the other three organisations may benefit from knowing what were the priorities of the district nurses within their own organisation as these may differ from the overall top priorities and a localised list is may beneficially inform local research agendas.

Varying Participation Across Rounds 2 & 3

The participation of panel members according to responding or not to Rounds 2 and 3 is presented in Table 10. Fifty eight percent of panel members responded to the questionnaires for both of these rounds, 16.9% did not respond to either, and the remainder responded to only one of the questionnaires, as indicated within Table 5.

Organisation	Total no. of panel members	Responded to both Round 2 & 3	Responded to only Round 2	Responded to only Round 3	Responded to neither Round 2 or 3
RDNS	137	78	18	19	22
Blue Care	118	67	9	19	23
Silver Chain	36	17	2	9	8
RDNS SA Inc	29	24	1	3	1
Total	**320**	**186 (58%)**	**30 (9.3%)**	**50 (15.6%)**	**54 (16.9%)**

Table 5. The participation of panel members according to responding or not to Rounds 2 and 3 – grouped into employees of organisations

Round 4

Accompanied by an explanatory letter (see Appendix P), a list of the top ten prioritised research questions considered as the consensus results of the study, and the prioritised responses to the 68 items of Round 3 as categorised according to specialty practice were forwarded to the 320 panel members (see Appendix Q). It was believed that in disseminating a summary of these results to panel members the researchers were fulfilling ethical and professional obligations to provide feedback to participants.

Costs of the Study

As ascertained by Williams & Webb (1994), studies using a Delphi approach are sometimes perceived to be relatively inexpensive, however, they query this assumption because of the considerable commitment of time required. According to Powell (2003), cost will depend on the scale of the survey, the complexities of process requirements, and the number of rounds. For this study, apart from basic costs (items listed below), extensive time was particularly required by the project manager/research officer for the:

- Writing of ethics proposals;
- Preparation of questionnaires and the accompanying letters for three rounds;
- Checking of codes on responses to identify non-responders;
- Preparation and forwarding of reminder letters;
- Entering of data into the computer database;
- Analysis of results;
- Preparation of the summary of results and accompanying letter for Round 4;
- Preparation of components of the first draft of the report.

Also, considerable time was required for the 320 panel members to participate, especially for those who responded to a lengthy questionnaire in Round 2.

The distribution of basic costs was:

Round 1

- To participating organisations, except for RDNS in Victoria but including LTU Postgraduate Clinical School of Community Nursing, the cost of photocopying a questionnaire, recruitment letter and consent form for all registered nurses (Division 1 registered nurses in Victoria) employed as district nurses within the organisation (for participant recruitment and gathering of first data);
- To each participating organisation, except for LTU Postgraduate Clinical School of Community Nursing, the cost of distribution of questionnaire and letters (in some organisations there was minimal expense as these were forwarded with pay-slips or through established courier systems).

- To each participating organisation, except for RDNS in Victoria but including LTU Postgraduate Clinical School of Community Nursing, the cost of reminder letters and forwarding of letters to the district nurses.
- To LTU Postgraduate Clinical School of Community Nursing, cost of postage-paid return envelopes for return of completed questionnaires and consent forms.

Rounds 2 & 3

- To LTU Postgraduate Clinical School of Community Nursing, cost of photocopying and distributing questionnaires by post to panel members;
- To LTU Postgraduate Clinical School of Community Nursing, cost of reminder letters and postage of reminder letters to panel members;
- To LTU Postgraduate Clinical School of Community Nursing, cost of postage-paid return envelopes for return of completed questionnaires and consent forms.

Round 4

- To LTU Postgraduate Clinical School of Community Nursing, cost of photocopying and distributing by post the summary of results to panel members.

Also to LTU Postgraduate School of Community Nursing:

- Cost of report production and dissemination.

Dissemination of Results

The dissemination of results is vital because the study has identified prioritised foci for district nursing research in Australia and thus will be a rich source of research suggestions for researchers of district nursing practice. The dissemination of these priorities also usefully informs conductors of systematic reviews regarding district nursing practice and potential providers of funds for district nursing research. The results will be of interest further afield also. Therefore, results are being presented at relevant local, national and international conferences and seminars. Papers based on the research will be submitted for publication to refereed journals, research journals and specialty journals.

Also:

- A summary of results were provided for each participant (this being Round 4 of the study);
- A report is being provided for each organisation that is a participating agency and for each ethics committee that provided essential approval for the study to be conducted;
- The report will be publicised on the web sites of participating agencies with information about how to order a copy of the research report at cost price.

It should also be noted that within an appendix to the report, suggestions for research foci that do not gain inclusion in the top priorities are listed in the questionnaire for Round 2 (see Appendix M). Therefore, all suggestions of research foci are acknowledged as valued contributions and are being disseminated, not only the top priority research foci.

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3. Results

The first section of this chapter about the results of the study is focused on the results of the analysis of participant demographics - inclusive of the distribution of panel members between generalist and specialist district nursing roles, a delineation of specialist roles, gender distribution, age groupings, length of employment as a district nurse, and whether the panel members had undertaken study about research and/or undertaken a research project previously. The latter section of the chapter presents the results of Rounds 1 and 2, then comprehensively details the final results (from Round 3) in regard to:

- The overall top ten research priorities for district nursing in Australia according to panel members;
- As four tables, the top ten research priorities for district nursing delineated according to panel members in each involved district nursing organisation;
- Prioritised responses to the 68 items grouped into categories according to specialty areas, aspects of general district nursing practice, or areas impacting upon care delivery/service provision.

Participant Demographics

Of the 320 panel members, 219 were generalist nurses and 100 were specialist nurses. Specialist areas were diverse, as indicated by Table 6. One participant declined to give demographic details, including whether being a generalist or a specialist district nurse.

Specialty of District Nursing	Frequency	Percent
Palliative Care	26	26.0
Wound Care	11	11.0
Liaison/Discharge Planning	9	9.0
Continence & Aged Care	7	7.0
Continence	6	6.0
Management	5	5.0
Diabetes	4	4.0
Stomal Therapy	3	3.0
Researcher	3	3.0
Homeless Persons Program	3	3.0
Education	3	3.0
Mental Health	2	2.0
Human Resources	2	2.0
HIV/AIDS	2	2.0
Cardiac & Drug & Alcohol	2	2.0
Wound Care, Stomal Therapy & Lymphoedema	1	1.0
Wound Care & Aged Care	1	1.0
Informatics	1	1.0
Education & Home Community Care Packages	1	1.0
Diabetes & Wound Care	1	1.0
Continence Aged Care & Diabetes	1	1.0
Continence & Palliative Care	1	1.0
Continence & Breast Care	1	1.0
Complaints & Technical Writing	1	1.0
Call Centre Clinical Nurse	1	1.0
Aged Care	1	1.0
Not recorded	1	1.0

Table 6. Specialty area of non-generalist district nurses within the panel

Table 7 presents participant gender. The number of male respondents (3.1%) is less than the 5.4% of males employed within RDNS' RN workforce (Human Resource Department, RDNS), this being an example of gender distribution in a district nursing organisation in Australia.
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Gender	Frequency	Percent
Female	309	96.6
Male	10	3.1
Not recorded	1	0.3

Table 7. Gender of panel members

Figure 3 indicates age groups of participants. The majority of participants were 41- 45 years of age, as are the majority of RDNS registered nurse employees (Human Resource Department, RDNS), this being an example of a district nursing organisation in Australia.

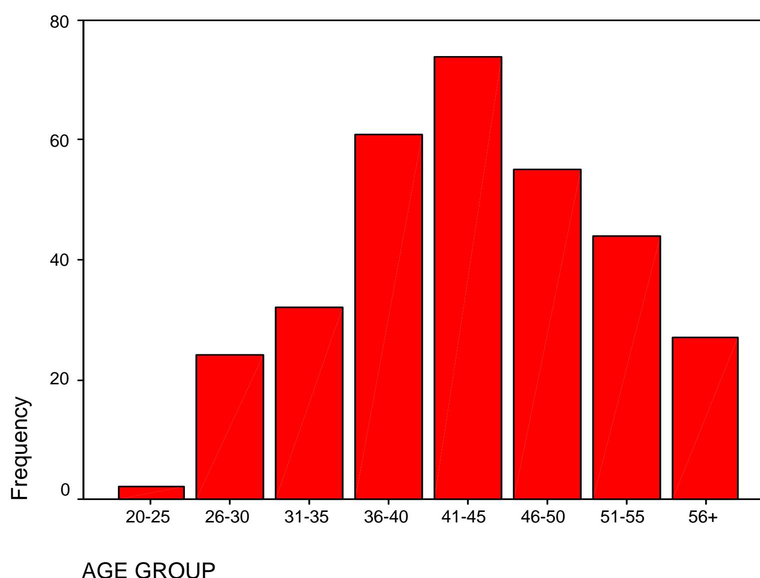

Figure 3. Age groups of panel members

Table 8 indicates the period of time panel members had been employed by one of the organisations as a district nurse at the time of accepting the invitation to participate. This is one indicator of experience and expertise. The majority of participants had been employed within one of the involved organisations between 6 and 15 years.

Period	Frequency	Percentage
1 month – 2 years	61	19.1
3-5 years	68	21.3
6-10 years	71	22.2
11-15 years	70	21.9
16-20 years	32	10.0
> 20 years	17	5.3
Not recorded	1	0.3

Table 8. Panel members period of employment as district nurses

The distribution of research education and research experience of panel members is presented in Tables 9 and 10. As indicated, less than half the panel members had undertaken study about research and less than a third had previously undertaken a research project.

Education about Research?	Frequency	Percentage
Yes	132	41.3
No	187	58.4
Not recorded	1	0.3

Table 9. Panel members – previously undertaken study about research

Undertaken a Research Study?	Frequency	Percentage
Yes	103	32.2
No	216	67.5
Not recorded	1	0.3

Table 10. Panel members - previously undertaken a research project

Results from Round 1

The responses to the questionnaire in Round 1 were extremely diverse and a large range of suggested research foci resulted. Some were suggested multiple times.

Analysis of the suggested research foci formed the basis of the questionnaire for Round 2. Therefore, the results of analysis of responses to Round 1 are listed as 419 suggested foci reworded as 419 research questions, accompanied by a summary of rationale for each suggestion, in Appendix M.

Results from Round 2

The results of analysis of responses to the questionnaire in Round 2 are presented in Appendix O as analysis of the top 15% of frequency responses resulted in the listing of 68 emerging research priorities, presented in decreasing frequency of level of importance to district nursing, within the questionnaire for Round 3.

Results from Round 3

Table 11 lists, as the major results, the overall top ten research priorities for district nursing in Australia according to the panel of 320 district nurses who formed the panel within this study.

Priority Number	Research Question
1	How to improve hospital discharge planning re district nursing care?
2	What is the impact of ineffective discharge planning on client outcomes?
3	How can district nursing services retain nurses?
4	Is the vast amount of documentation required eroding patient care time?
5	Can admission documentation be simplified in a way that would avoid unnecessary duplication?
6	How can documentation requirements be limited?
7	What is the impact of early discharge of clients into the community?
8	How to best manage pain & symptoms for palliative care clients?
9	How to ensure a safe environment for the aged with no family supports?
10	What is the role of assessment in district nursing?

Table 11. The top 10 research priorities for district nursing according to a panel of 320 district nurses in Australia.

Top Ten Research Priorities Regarding Each Organisation

As discussed and justified in the previous chapter, toward the end of the study it was decided to analyse and present as results the top ten research priorities identified by panel participants within each of the organisations involved. These results are presented in the following tables: Table 12 regarding RDNS (sited in Melbourne, Victoria), Table 13 regarding Blue Care (sited throughout Queensland and some sections of northern New South Wales), Table 14 regarding Silver Chain (sited throughout Western Australia) and RDNS SA Inc (sited in Adelaide, South Australia and in one remote rural town in South Australia).

Priority Number	Research Question
1	What is the impact of ineffective discharge planning on client outcomes?
2	What is the impact of early discharge of clients into the community?
3	How can district nursing services retain nurses?
4	How to improve hospital discharge planning re district nursing care?
5	What is the cost to the community of hospital acquired pressure sores?
6	What is the role of assessment in district nursing?
7	Is funding for community care packages sufficient to enable aged care clients to remain at home with additional district nursing support?
8	How to ensure a safe environment for the aged with no family supports?
9	Is the education that clients receive regarding their medications prior to hospital discharge adequate?
10	What is the incidence of hospital readmission re poor discharge planning?

Table 12. The top 10 research priorities for district nursing according to panel members employed by RDNS.

Priority Number	Research Question
1	How to improve hospital discharge planning re district nursing care?
2	Is the vast amount of documentation required eroding patient care time?
3	How to best manage pain & symptoms for palliative care clients?
4	How can documentation requirements be limited?
5	Why does the government pour funding into GP practice nurses when district nursing organisations already have infrastructure in place?
6	How much time is required to document for DVA clients?
7	Can admission documentation be simplified in a way that would avoid unnecessary duplication?
8	What are the areas most in need of Home & Community Care funding?
9	How can communication between district nurses and other agencies, such as hospitals and other community resources, be improved?
10	How can district nursing services retain nurses?

Table 13. The top 10 research priorities for district nursing according to panel members employed by Blue Care.

Priority Number	Research Question
1	How can district nursing services retain nurses?
2	What is the role of assessment in district nursing?
3	Is it more cost effective to keep ageing clients in their home with additional supports rather than placement in residential institutions?
4	Can admission documentation be simplified in a way that would avoid unnecessary duplication?
5	How to best manage pain & symptoms for palliative care clients?
6	Does education in leg ulcer management result in better client outcomes?
7	How to improve hospital discharge planning re district nursing care?
8	Is the vast amount of documentation required eroding patient care time?
9	How can forms used by district nurses be rendered 'user friendly'?
10	What is the impact of ineffective discharge planning on client outcomes?

Table 14. The top 10 research priorities for district nursing according to panel members employed by Silver Chain.

Priority Number	Research Question
1	What is the impact of ineffective discharge planning on client outcomes?
2	How to ensure a safe environment for aged with no family supports?
3	Can admission documentation be simplified in a way that would avoid unnecessary duplication?
4	Is it more cost effective to keep ageing clients in their homes with additional supports rather than placement in residential institutions?
5	How can communication between district nurses and other agencies, such as hospitals and other community resources, be improved?
6	How to improve hospital discharge planning re district nursing care?
7	What is the impact of early discharge of clients into the community?
8	How can documentation requirements be limited?
9	How effective is discharge planning?
10	What is the incidence of hospital readmission re poor discharge planning?

Table 15. The top 10 research priorities for district nursing according to panel members employed by RDNS SA Inc.

Research Priorities Categorised into Themes

The prioritised responses to the 68 items of Round 3 were also grouped, as results of the study, into categories according to specialty areas of district nursing practice, aspects of general nursing practice, or areas potentially impacting upon care delivery and service provision.

These areas, analysed into themes, are listed in Table 16, as well as the number of research questions from the 68 items of the questionnaire circulated in Round 3. Some research questions need to be listed under two areas/themes, as deemed relevant and appropriate.

Areas/Themes	No. of Research Questions
Wound Care	10
Discharge Planning/Liaison	9
Documentation	9
Workload	6
Education (of clients or nurses)	6
Funding	6
Occupational Health & Safety	5
Aged Care	4
Mental Health	3
Staffing	3
Carers	3
Palliative Care	2
Diabetes Management	2
Technology	2
Medication Management	2
Image/Role	2
Communication	2
Rural Areas	2
Assessment	2
Infection Control	1

Table 16. The number of prioritised research questions (results of responses to 68 items of the questionnaire in Round 3) grouped into areas/themes pertaining to district nursing.

To follow, Tables 17 to 36 list the research questions that can be grouped into each of the areas (themes) and the final priority of each research question from the analysis of responses regarding the 68 research questions that were the items in the questionnaire for Round 3.

As previously stated, it should be noted that some research questions fit within multiple areas/themes, as deemed relevant and appropriate

Final Priority (from 68 items in Round 3)	Research Question
16	What is the cost to the community of hospital acquired pressure sores?
21	What is best practice in the treatment of leg ulcers & chronic leg ulcers?
27	Does education in leg ulcer management result in better client outcomes?
31	How to ensure best practice in wound care in the community setting?
41	What formal wound care education is required by district nurses?
45	Do district nurses know how to manage pain associated with wounds?
46	Is compression therapy correctly utilised to treat venous leg ulcers?
52	How does the cost of wound care products to clients impact upon them?
54	How can the most 'appropriate' dressing for wounds be selected?
56	What is the incidence of people who have pressure ulcers admitted to district nursing care from acute care hospitals?

Table 17. Research priorities related to *Wound Care*

Final Priority (from 68 items in Round 3)	Research Question
1	How to improve hospital discharge planning re district nursing care?
2	What is the impact of ineffective discharge planning on client outcomes?
7	What is the impact of early discharge of clients into the community?
22	Is the education that clients receive regarding their medications prior to hospital discharge adequate?
23	How effective is discharge planning?
26	What is the incidence of hospital readmission re poor discharge planning?
29	How can a collaborative process of discharge planning be initiated?
42	What is the impact on clients of being discharged from hospital when there is a delay before district nurse is able to visit at home?
58	How well are newly diagnosed insulin dependant diabetic (IDD) patients educated in hospital?

Table 18. Research priorities related to *Discharge Planning/Liaison*

Final Priority (from 68 items in Round 3)	Research Question
4	Is the vast amount of documentation required eroding patient care time?
5	Can admission documentation be simplified in a way that would avoid unnecessary duplication?
6	How can documentation requirements be limited?
20	How much time is required to document for DVA clients?
34	Are district nursing services using the most appropriate documentation?
35	How necessary are lengthy assessment tools?
48	How can forms used by district nurses be rendered 'user friendly?
53	Is the large amount of paperwork associated with client referrals beneficial to clients or a hindrance to client care time?
64	Clinical Pathways - are they beneficial to the clinician and consumer?

Table 19. Research priorities related to *Documentation*

Final Priority (from 68 items in Round 3)	Research Question
13	How much unpaid overtime do district nurses do?
33	What is a 'manageable caseload'?
37	What is the impact of pre-allocated time for nursing visits on the district nurses ability to explore new problems?
44	What contact time is required for adequate care of the whole person?
51	Are district nurses overworked?
66	What is the impact of excessive travel on district nurses?

Table 20. Research priorities related to *Workload*

Final Priority (from 68 items in Round 3)	Research Question
22	Is the education that clients receive regarding their medications prior to hospital discharge adequate?
32	Is the education preparation of district nurses adequate?
38	Do generalist district nurses require further education regarding caring for clients with mental illness in the community?
41	What formal wound care education is required by district nurses?
55	What is the most effective education of clients with diabetes?
58	How well are newly diagnosed insulin dependant diabetic (IDD) patients educated in hospital?

Table 21. Research priorities related to *Education (Nurses & Clients)*

Final Priority (from 68 items in Round 3)	Research Question
12	Is funding for community care packages sufficient to enable aged clients to remain at home with additional district nursing support?
14	What are the areas most in need of 'Home & Community Care' (HACC) funding?
15	Is it more cost effective to keep ageing clients in their home with additional supports rather than placement in residential institutions?
17	Why does the government pour funding into General Practice (GP) practice nurses when district nursing organisations already have infrastructures in place?
18	What are the cost benefits of in home care compared to acute and residential care, including 'Home in the Hospital' (HITH), Hospice etc?
43	Are funding restraints a source of stress for district nurses?

Table 22. Research priorities related to *Funding*

Final Priority (from 68 items in Round 3)	Research Question
43	Are funding restraints a source of stress for district nurses?
50	What are safety issues for district nurses according to district nurses?
51	Are district nurses overworked?
57	What impact does caring for dying children have on palliative care nurses?
66	What is the impact of excessive travel on district nurses?

Table 23. Research priorities related to *Occupational Health & Safety*

Final Priority (from 68 items in Round 3)	Research Question
9	How to ensure a safe environment for aged with no family supports?
15	Is it more cost effective to keep ageing clients in their home with additional supports rather than placement in residential institutions?
19	What impact does caring for clients with dementia have upon the carer, the family, and health care professionals?
65	What should be a district nurse's role re care of clients with dementia?

Table 24. Research priorities related to *Aged Care*

Final Priority (from 68 items in Round 3)	Research Question
30	What is the adequacy of services availability for people with a mental illness diagnosis in the community?
38	Do generalist district nurses require further education regarding caring for clients with mental illness in the community?
59	How to improve support availability for people with psychiatric illness?

Table 25. Research priorities related to *Mental Health*

Final Priority (from 68 items in Round 3)	Research Question
3	How can district nursing services retain nurses?
13	How much unpaid overtime do district nurses do?
25	District nurses - are they case managers?

Table 26. Research priorities related to *Staffing*

Final Priority (from 68 items in Round 3)	Research Question
24	Are carers getting sufficient support in the community?
47	How effectively do district nurses provide carer support?
62	What are the effects of being the 'carer'?

Table 27. Research priorities related to *Carers*

Final Priority (from 68 items in Round 3)	Research Question
8	How to best manage pain & symptoms for palliative care clients?
57	What impact does caring for dying children have on palliative care nurses?

Table 28. Research priorities related to *Palliative Care*

Final Priority (from 68 items in Round 3)	Research Question
55	What is the most effective education of clients with diabetes?
58	How well are newly diagnosed insulin dependant diabetic (IDD) patients educated in hospital?

Table 29. Research priorities related to *Diabetes Management*

Final Priority (from 68 items in Round 3)	Research Question
67	What are the advantages and disadvantages of computers in the domiciliary setting?
68	Are handheld computers eroding time available for direct nursing care?

Table 30. Research priorities related to *Technology*

Final Priority (from 68 items in Round 3)	Research Question
49	How can polypharmacy be best addressed?
60	What is the role of the district nurse to ensure medication authorisation?

Table 31. Research Priorities related to *Medication Management*

Final Priority (from 68 items in Round 3)	Research Question
28	How can the profile of district nurses be raised in the public eye?
40	How can the status of district nursing be improved?

Table 32. Research priorities related to *Image*

Final Priority (from 68 items in Round 3)	Research Question
11	How can communication between district nurses and other agencies, such as hospitals and other community resources be improved?
39	How can communication be improved between GPs and district nurses?

Table 33. Research priorities related to *Communication*

Final Priority (from 68 items in Round 3)	Research Question
36	What is the need for nurse practitioners in rural areas?
61	Is there a need for after-hour care in rural communities?

Table 34. Research priorities related to *Rural Areas*

Final Priority (from 68 items in Round 3)	Research Question
10	What is the role of assessment in district nursing?
35	How necessary are lengthy assessment tools?

Table 35. Research priorities related to *Assessment*

Final Priority (from 68 items in Round 3)	Research Question
63	What are the implications of referral of clients with Methicillin Resistant Staphylococcus Aureus and Vancomycin-resistant Enterococci?

Table 36. Research priorities related to *Infection Control*

4. Discussion

This, the final chapter of the report, discusses the results of the study by first focussing on the overall top ten research priorities, contextualising each to the strength of the theme into which it fits according to how many research suggestions were listed in the penultimate prioritisation of 68 research priorities, and also in regard to placement position of that item in the four organisation-specific lists of research priorities.

Discussion will then be offered concerning a comparison of the four organisation-specific lists of research priorities followed by some discussion of the area/theme-specific lists of research priorities analysed from Round 3 of the study.

Potential limitations of the study are presented and discussed prior to concluding statements.

The Top Ten Research Priorities

The content of this list is a mix of both direct clinical research questions and indirect clinical research questions. The classification of 'direct' vs 'indirect' regarding clinical research questions could be fraught with assumptions that obfuscate meaning. Therefore, to clarify meaning about the use of these terms in this report, the definitions are:

- 'direct clinical' - research questions that are focussed on a specific nursing intervention (e.g. a treatment for wound care);
- 'indirect clinical' - research questions that are focussed on issues impacting on nursing practice but that are not focussing on a specific nursing interventions (e.g. a workload issue).

Throughout the 419 research questions gleaned from responses to the questionnaire in Round 1, and also throughout the penultimate 68 research questions prioritised by the panel in Round 2 (top 15%), numerous indirect clinical research questions featured. When evaluating the foci of all these indirect clinical research questions, and the wording of rationale provided for suggestions in Round 1, it could be posited that apart from the study presenting panel members with opportunity to identify research priorities for district nursing, the study may have also offered a chance for panel members to have 'voice' about issues pertaining to indirect clinical issues about which they have concern, perhaps frustration – such as workload and funding issues. Half of the top ten research priorities are indirect clinical research questions.

The contemporary position in Australian nursing in general is to foster and facilitate the pursuit and application of knowledge with direct clinical application – arising from the call for evidence-based nursing that reflects the wider contemporary call for evidence-based practice in other health-care disciplines such as medicine. However, surely knowledge and understanding about indirect clinical issues can also ultimately have a positive impact upon nursing practice. Therefore, all the top ten research priorities suggested by the panel can be viewed as having the potential, if well researched, to improve the quality of client care for district nursing clients.

In regard to each of the top ten research priorities:

1. How to improve hospital discharge planning re district nursing care?

Discharge planning is a nursing intervention and therefore is a direct clinical research question. The top two priorities focus on discharge planning and under the theme of discharge planning, nine of the top 68 priorities focus on discharge planning. Obviously discharge planning is a major issue for district nursing in Australia.

This specific research question about discharge planning of clients from hospital into the care of district nurses, is number one priority overall with the panel, and is included in all of the organisation-specific top ten lists of priorities - that is:

- Number 5 in the RDNS-specific list;
- Number 1 in the Blue Care-specific list;
- Number 7 in the Silver Chain-specific list;
- Number 6 in the RDNS SA Inc.-specific list.

This is the only priority that features in all four organisation-specific top ten lists. Therefore, the panel overall strongly wants to see improvement regarding discharge planning of clients from hospital into the care of district nurses, and overall believe that research is required for this purpose more than for any other interventions or issues regarding district nursing.

2. What is the impact of ineffective discharge planning on client outcomes?

Accompanying a sense that improvement needs to occur in hospital-sited discharge planning prior to clients being transferred into the care of district nurses, the panel are asking that the outcomes for clients of ineffective discharge planning be identified and possibly explored. With the positioning of these associated direct clinical research questions as the top two priorities, there is a plausible interpretation that the panel have anecdotal and/or experiential evidence of the client outcomes from ineffective discharge planning, but require empirical evidence for the claim that this is an issue needing to be addressed – perhaps somewhat urgently.

This second priority is included in three of the organisation-specific top ten lists of priorities - that is:

- Number 1 in the RDNS-specific list;
- Number 10 in the Silver Chain-specific list;
- Number 7 in the RDNS SA Inc.-specific list.

3. How can district nursing services retain nurses?

There is a shortage of registered nurses at this time in Australia, as indeed there are in some other parts of the world. The panel may be concerned about this regarding having adequate numbers of nursing staff for district nursing care – a workload issue. However, it is also possible that there is concern about nurses gaining experience and expertise in district nursing practice and then not choosing to continue with this form of community nursing practice. The research question is not about how to recruit nurses for district nursing, but rather how to retain nurses in district nursing services!

As the third priority overall, and with a high placing, this indirect clinical research question features in three of the organisation-specific top ten lists of priorities - that is:

- Number 3 in the RDNS-specific list;
- Number 10 in the Blue Care-specific list;
- Number 1 in the Silver Chain-specific list.

There are three research suggestions within the top 68 priorities that can be categorised under the theme of ‘staffing’, this being the top placed priority in that grouping.

4. Is the vast amount of documentation required eroding patient care time?

Documentation is an intrinsic part of district nursing practice, but is not a nursing intervention; therefore this fourth placed priority fits more appropriately into the classification of an indirect clinical research question. Implicit to this research question is the high value placed by the panel upon having

adequate time for direct patient care and a discernment that this is being eroded by the amount of documentation being required of district nurses. The panel wants this to be checked empirically.

The priority is listed in two of the organisation-specific top ten lists of priorities - that is:

- Number 2 in the Blue Care-specific list;
- Number 8 in the Silver Chain-specific list.

However, there are three documentation-related research questions in the list of overall top ten research priorities, and nine research questions listed in the top 68 priorities under the theme of documentation – an equal number to those listed under the theme of discharge planning. So, the panel members consider documentation to be a significant issue regarding district nursing practice and their concerns are voiced in articulating research foci about this issue.

5. Can admission documentation be simplified in a way that would avoid unnecessary duplication?

This priority also addresses the issue of documentation and fits under the theme of 'documentation' with 8 other research questions in the top 68 priorities, but specifically focuses on admission documentation and the element of avoiding unnecessary duplication through the perceived need for simplification. Also an indirect clinical research question (a nursing intervention is not the focus), this priority features in three organisation-specific top ten lists of priorities - that is:

- Number 7 in the Blue Care-specific list;
- Number 4 in the Silver Chain-specific list;
- Number 3 in the RDNS SA Inc.-specific list.

6. How can documentation requirements be limited?

Added to the previous two priorities fitting under the theme of documentation, this research question wants ways identified as to how to limit document requirements. Therefore, in the top six priorities, three are pertaining to documentation and indicate the panel's opinion that documentation is a major indirect clinical issue requiring collectively simplification, non-duplication, limiting, and to not erode the time available for care of clients. It is a strong call for research into these documentation issues.

In regard to this sixth-placed priority, it is also listed in two organisation-specific top ten lists of priorities - that is:

- Number 4 in the Blue Care-specific list;
- Number 8 in the RDNS SA Inc.-specific list.

7. What is the impact of early discharge of clients into the community?

In this era in Australia, there is a policy of discharging patients as soon as is possible from acute health care institutions, resulting in earlier discharge of clients requiring district nursing care than in previous eras – plus increasing the number of people requiring follow-up nursing care in the community, including district nursing care. The impact of this upon the people being discharged 'early' into the community is of concern to the panel and they have highly prioritised the need to research to identify the impact. Not being a focus on a nursing intervention, this is an indirect clinical research question about an issue being forced upon clients, district nurses and district nursing organisations by government health care policy and which supposedly has impact consequences for clients, district nurses and district nursing organisations.

Classified as a potentially discharge-planning issue also, this priority features in only one of the organisation-specific top ten lists of priorities - that is

- Number 2 in the RDNS-specific list

but as the second top priority of almost half the panel members, has frequency strength to be listed the seventh priority research question overall.

8. How to best manage pain & symptoms for palliative care clients?

A direct clinical research question, this eighth placed research priority overall is one of two research questions in the category of palliative care regarding the top 68 research priorities. Symptom management, including management of pain, is a major role for palliative care teams, including teams that contain district nurses. Obviously the panel overall considers that inadequate evidence is available in regard to symptom management in this specialty of nursing care, although there may need to be a check to discover how well disseminated to district nurses (and the other palliative care team members such as doctors) is the latest evidence regarding symptom management.

Within the organisation-specific top ten lists of priorities, this priority research question is listed twice - that is:

- Number 3 in the Blue Care-specific list;
- Number 5 in the Silver Chain-specific list.

9. How to ensure a safe environment for the aged with no family supports?

Ensuring a safe environment for the aged with no family supports can be a district nursing intervention or involve a number of nursing interventions. Therefore, this priority can be classified as a direct clinical research question. Obviously the panel are concerned about situations when older people have no family support and where a safe environment is an issue. They are requesting research on interventions that may be useful for such situations. As there are an increasing proportion of aged people within the Australian population, and as several social trends (e.g. less marriage, commonality of divorce, increasing childlessness) may increase the incidence of older people with no family supports in the future, this focus may continue to be of importance.

This research question is the highest of the four research priorities in the theme of aged care from the categorisation of the top 68 priorities identified by the panel, and is included in two organisation-specific top ten lists of priorities - that is:

- Number 8 in the RDNS-specific list;
- Number 2 in the RDNS SA Inc.-specific list.

10. What is the role of assessment in district nursing?

Assessment is part of the nursing process but is not a nursing intervention, therefore is an indirect clinical research question. Categorised as an issue under the theme of assessment, this priority is one of two listed under that theme. Assessment is a key activity in district nursing care with usually the employing organization specifying the range of assessment required at admission and possibly suggesting what should be assessed and how often from then on whilst the client is receiving district nursing care. However, personal professional judgement should also govern what assessment occurs and when this is done. The panel are promoting the need for the actual role of assessment in district nursing to be researched and feel strongly enough about this to rate the research question in the top ten priorities.

Within the organisation-specific top ten lists of priorities, this priority research question is listed twice - that is:

- Number 6 in the RDNS-specific list;
- Number 2 in the Silver Chain-specific list.

The Four Organisation-Specific Lists of Research Priorities

There are contrasts between the four organization-specific lists of top ten research priorities. As presented in Chapter 2, the percentage of district nurses from each organisation on the 320-member panel, as a self-selected sample from the whole population was:

RDNS	=	42.5%
Blue Care	=	36.6%
Silver Chain	=	11.6%
RDNS SA Inc.	=	9.1%
Not Recorded	=	0.3%

Royal District Nursing Service (RDNS) *– in Melbourne, Victoria*

Half of the ten priorities are concerning the theme of discharge planning – ostensibly discharge planning for people being discharged from acute care settings to become district nursing clients, either initially or consequently. Three of the top four research priorities are about discharge planning. Deficiencies in this area were obviously a major issue for the panel members practising district nursing in Melbourne.

The other themes addressed in the list by one item each are staffing, wound care (pressure sores), assessment, funding, and aged care/education.

Seven of the research priorities in the RDNS-specific list of the top ten priorities can be categorised as direct clinical research questions if all the discharge planning research questions in the list are considered to relate to a nursing intervention, that being discharge planning.

Six of the research questions in the top ten priorities of RDNS employed district nurses are included in the top ten research priorities listed by the panel overall. The four research questions omitted from the overall list are:

- What is the cost to the community of hospital acquired pressure sores? (Number 5)
- Is funding for community care packages sufficient to enable aged care clients to remain at home with additional district nursing support? (Number 7)
- Is the education that clients receive regarding their medications prior to hospital discharge adequate? (Number 9)
- What is the incidence of hospital readmission re poor discharge planning? (Number 10)

The three research questions about documentation that are listed in the top ten research priorities overall do not feature in the RDNS-specific list, therefore documentation does not seem to be as large an issue with these nurses as it is for panel members in some other parts of Australia. Also, the palliative care research question that is in the top ten overall priorities (about management of symptoms) is missing.

Blue Care *– throughout Queensland and some parts of northern New South Wales*

Documentation issues were the dominant concern of Blue Care employed panel members as four of the ten priorities address this theme. Two priorities are focussed on the issue of funding, whilst there is one priority each for the themes of discharge planning, palliative care, communication and staffing. Eight of the research priorities in this list are indirect clinical research questions, and two are direct clinical research questions.

As with the RDNS-Specific list, six of the research questions in the top ten priorities of Blue Care employed district nurses are included in the top ten research priorities listed by the panel overall. The four research questions in the Blue Care-specific list that are omitted from the overall list are:

- Why does the government pour funding into GP practice nurses when district nursing organizations already have infrastructure in place? (Number 5)
- How much time is required to document for Department of Veteran Affairs clients? (Number 6)
- What are the areas most in need of Home & Community Care funding? (Number 8)
- How can communication between district nurses and other agencies, such as hospitals and other community resources, be improved? (Number 9)

This list also indicates less priority given to discharge planning than is reflected in the overall list, and less emphasis on the need for research regarding the themes of aged care and assessment.

Silver Chain *– throughout Western Australia*

For Silver Chain employed panel members, the dominant theme for research priorities was also documentation, as it was with the Blue Care employed panel members with three research questions pertaining to such, and with discharge planning also a common research concern with two priorities under this theme. However, number one priority was reserved for a staffing issue (retention of district nurses). Additional themes addressed through one research question each in this list were assessment, aged care/funding, and palliative care.

Four of the priorities can be classified as direct clinical research questions and six as indirect clinical research questions.

Seven of the research priorities in this list are also included in the list of the overall ten priorities of panel members. Therefore, of the four involved organisations, it is the concerns of the Silver Chain employed panel members that are most comprehensively included in the overall list of research priorities. The three research questions that are not included in the overall list are:

- Is it more cost effective to keep ageing clients in their home with additional supports rather than placement in residential institutions? (Number 3)
- Does education in leg ulcer management result in better client outcomes? (Number 6)
- How can forms used by district nurses be rendered ‘user friendly’? (Number 9)

The Silver Chain employed panel members were not as concerned about one of the documentation research foci, one of the discharge planning research foci, and one of the aged care research foci listed in the top ten priorities overall.

Royal District Nursing Service South Australia Incorporated (RDNS SA Inc.) *– in Adelaide and in one remote rural town in South Australia*

Including the top priority, in this list the dominant theme under which the research priorities can be grouped is discharge planning, with half addressing this theme. There are two documentation focussed research questions, two research questions under the theme of aged care with one of these also being able to be categorised under the theme of funding, and one communication oriented research question.

If discharge planning is classified as a nursing intervention, then a total of six of the research priorities are direct clinical research questions and four are indirect clinical research questions.

As with the organisation-specific lists of RDNS and Blue Care, six of the top ten research priorities identified by RDNS SA Inc employed panel members are common to the top ten listed by panel

members overall. The four research questions that do not appear in the overall list of top ten priorities are:

- Is it more cost effective to keep ageing clients in their homes with additional supports rather than placement in residential institutions? (Number 4)
- How can communication between district nurses and other agencies, such as hospitals and other community resources, be improved? (Number 5)
- How effective is discharge planning? (Number 9)
- What is the incidence of hospital readmission re poor discharge planning? (Number 10)

The RDNS SA Inc. employed panel members did not rate as highly as the panel overall four research questions that deal with issues that can be categorised under staffing, assessment, documentation and palliative care.

Summary Comparisons & Contrasts

Discharge planning was the dominant theme for panel members from two of the organisations – RDNS and RDNS SA Inc., who also both had a discharge planning research question listed as top priority. Discharge planning also featured quite strongly in the Silver Chain–specific list of top ten research priorities, being the second most common theme. Additionally, although only listing one discharge planning focussed research question amongst their list of top ten priorities, the Blue Care employed panel members chose this as top priority.

Documentation was the most common theme for Blue Care employed panel members to include in their top ten research priorities, as it was also for those employed by Silver Chain, but the top listed priority in the Silver Chain-specific list was a staffing issue.

Collectively, the four organisation-specific lists of research priorities feature 12 research questions that are not listed in the top ten research priorities overall. Three of these 15 research questions are listed twice in the organisation-specific lists.

The Area/Theme-Specific Lists of Research Priorities

Of the twenty areas/themes under which the top 68 research priorities can be categorised, only 6 have items that appear in the list of the top ten research priorities overall. These six are:

- Discharge Planning
- Documentation
- Aged Care
- Staffing
- Palliative Care
- Assessment

Within the four organisation-specific lists of top ten research priorities, other research questions feature that can be categorised under four more areas/themes, these being:

- Wound Care
- Funding
- Communication
- Education

Although the most highly ranked research priorities in the top 68 research questions are under the theme of discharge planning and then the theme of documentation, the greatest number of research questions in this list of 68 is the 10 that can be categorised under wound care. The areas/themes of discharge planning and documentation have 9 research questions each. Despite the longer list of

research questions categorised as wound care, none featured in the top ten research priorities overall, and only two were listed in the organisation-specific lists of top ten priorities, these being:

- What is the cost to the community of hospital acquired pressure sores? (RDNS)
- Does education in leg ulcer management result in better client care? (Silver Chain)

However, the categorised top 68 research priorities, and their prioritisation, are listed in tables included in Chapter 3 of this report to inform researchers and potential researchers of district nursing phenomena that may be are interested in these areas/themes.

Possible Limitations

Re: Generalisability

This study can claim to have identified research priorities for district nursing according to a panel of district nurses in Australia. However, although the whole population of registered nurse (Division 1 in Victoria) district nurses in four major Australian district nursing organisations over five States of Australia was invited to form the panel, and although the resultant self-selected sample was 13.4% of that population, the findings may not necessarily be representative of the opinion of the population overall or for the majority of district nurses in Australia. This remains a possible limitation despite considerable comment in pertinent methodology literature that Delphi-type surveys require a committed panel that is not necessarily randomly selected (and therefore representative) and that panel members must possess expertise regarding the focus – in this study, district nursing practice. However, debate still occurs about the need for a representative sample (panel members), as ascertained from a trawl through the literature by Powell (2003).

Re: Participant Fatigue Impact

Three rounds of questionnaires require considerable commitment by panel members. In this study, only 58% of panel members provided responses to all three questionnaires. The numbers and percentages of panel members who responded in varying patterns to the questionnaires are listed in Chapter 2 of this report, but in any forum group members may choose to contribute to discussion and decision-making at different times. In this regard, the contribution of the panel members in this study could be considered to reflect what occurs in other forums such as focus groups or committee meetings.

In addition, the questionnaire for Round 2 was very lengthy – 419 items over 15 pages. Consequently, 23% of questionnaires returned did not have responses to all items, as detailed in range within Chapter 2 of this report. Presumably, the vast number of items wearied panel members. The research team had been concerned that this may occur when compiling the questionnaire for Round 2, but felt that they had to include all 419 research suggestions plus a succinct summary of rationale for each suggestion (as requested in the Round 1 questionnaire) – and also fit in a Likert scale next to each item. If seeking suggestions from a panel for items to be prioritised, rather than pre-selecting variables (e.g. from literature or a focus group), then all suggestions need to be presented to other panel members. What may have lessened the length of the questionnaire is if a smaller panel had been accessed, such as a self-selected panel from a sample of the population – rather than from the whole population as was done in this study.

Nevertheless, the response rate to Round 2 was 65.45 (77% of whom responded to 419 items) and the response rate to Round 3 was 73.8%, which can be deemed to be adequate response rates for the findings to be credible.

Re: Potential Bias

The list of ten overall research priorities may be swayed toward the opinion of the panel members from RDNS, just one of the organisations involved with the study, as almost half of the panel members were of this origin and almost outnumbered the panel members from the other organisations (and States). In an effort to compensate for this bias, this report has also presented four lists of the top ten priorities according to panel members of each involved organisation. However, these priorities were selected by the four lots of panel members in Round 3 from 68 choices determined from the previous round of prioritising 419 research suggestions where that prioritising may have also been biased by the panel members being almost half from RDNS.

Re: Adequate Feedback

To the purist Delphi technique methodologist, the study findings could be judged as limited by the decision by the research team to not request rationale for prioritisation of questionnaire items in Round 2, and therefore to not have rationale to present to panel members with the items listed in the questionnaire for Round 3. The pragmatic reasons for this decision are detailed within Chapter 2 of this report as well as an explanation as to why it was considered that adequate feedback was actually being presented in the questionnaire for Round 3. Also, the researchers were aware that with use of Delphi-type method in contemporary times, the nature of feedback provided to panellists does vary greatly (Crisp et al, 1997). Additionally, the researchers are claiming to have used a Delphi approach rather than the traditional Delphi technique, and therefore with justification provided, can differ in some process steps to the classic method.

Re: Specialty Practice Foci

The research team had hoped when planning the study to identify research priorities for specialty practice areas in district nursing according to groups of panel members who specialise in those areas. When the demographic details of panel members, as provided in Ground 1, were analysed, it became apparent that inadequate numbers of panel members in each specialty, and the lack of any panel members in some specialties, would limit this intention. On reflection, it was realised that generalist district nurses can and do practice across specialties (e.g. wound care) and also have expertise in specialties. Consequently, to also capture the clinical insights and opinions of generalists (the bulk of district nurses), a decision was made to not isolate the research suggestions of the specialists for only their consideration in Rounds 2 & 3, but to incorporate all suggestions together – and to identify specialist foci research questions in the final prioritisations.

Conclusion

The Delphi approach, as applied in this study, was experienced as a useful method of identifying district nursing research priorities from a panel of 320 district nurses from widely distributed geographical areas of Australia. This would not have been possible, especially also considering the iteration and simultaneous decision making about common data that the Delphi approach provided, if utilising other methods such as focus groups held in different regions of the country. Although not inexpensive, the method proved to be relatively cost effective and was certainly expedient.

Researchers (and potential researchers) of district nursing phenomena can be guided by the lists of research priorities as identified by panel members in this study. There is a list of ten top research priorities overall, four lists of ten top priorities grouped according to source of panel members from each of the four involved organisations, and also the top 68 research priorities grouped according to themes or areas pertinent to district nursing practice. Direction has, therefore, been provided for the selection of clinically relevant research priorities that seek to be either nationally, locally or specialty relevant regarding district nursing in Australia. Additionally, the priorities could guide the allocation of limited research monies for district nursing research and provide justification for research funding grants for projects that seek to research any of these foci.

In the present milieu of needing to facilitate evidence-based district nursing practice, the priorities identified can also guide the selection of foci for systematic reviews of evidence to check how well disseminated to district nurses is pertinent evidence. Have some of these research questions already been extensively researched but the findings remain unknown to the district nurses?

As many of the research priorities are possibly indicative of issues about which the panel members feel strongly as impacting negatively upon their ability to deliver quality care to clients, or may be impacting negatively upon their work-day, their health or safety, or perhaps levels of frustration and job satisfaction, district nursing organizations may find guidance about areas under their control to target for improvement – or where evidence may be needed to strengthen submissions for funding.

The district nurse participants have hopefully developed as reflective practitioners with inquiring minds regarding what evidence may yet be necessary to research so that best practice can eventuate. Additionally, it is hoped that these panel members have satisfaction in knowing their opinions and ideas are valued and that they have contributed toward facilitating research for practice-applicable district nursing knowledge.

This report is not the end of the study process as there is now an obligation to disseminate the results widely at both a national and international level. The researchers hope and trust that the major outcome of this study will be the facilitation of best practice by district nurses through prompting the pursuit of pertinent evidence for actions and interactions, thereby ultimately improving and enhancing the health status and well-being of community-dwelling Australians (and potentially others internationally).

References

Albrecht, M., & Perry, K. (1992). Home Health Care. Delineation of Research Priorities and Formation of a National Network Group. *Clinical Nursing Research, 1*(3), 305-311.

Annells, M., Averis, A., Brown, J., Gardner, A., Hockley, C., Surguy, S., & Thornton, D. (1997). *An inquiry of Research Priorities in Nursing and Midwifery in South Australia Using a Delphi Technique*. South Australia: Royal District Nursing Service.

Bartu, A., Mcgowan, S., Nelson, M., Ng, C., & Robertson, B. (1993). A Western Australian Delphi survey of staff development research priorities. *Journal of Nursing Staff Development, 9*(3), 141-147.

Bell, P., Daly, J., & Chang, E. (1997). A study of the educational and research priorities of registered nurses in rural Australia. *Journal of Advanced Nursing, 25*(4), 794-800.

Beretta, R. (1996). A critical review of the Delphi Technique. *Nurse Researcher, 3*(4), 79-89.

Bowles, N. (1999). The Delphi technique. *Nursing Standard, 13*(45), 32-36.

Carney, O., McIntosh, J., & Worth, A. (1996). The use of the nominal group technique in research with community nurses. *Journal of Advanced Nursing, 23*, 1024-1029.

Chang, E., & Daly, J. (1996). Clinical research priorities in oncology nursing: An Australian perspective. *International Journal of Nursing Practice, 2*, 21-28.

Chang, E., & Daly, J. (2000). A Delphi study of clinical research priorities in aged care nursing.

Crisp, J., Pelletier, D., Duffield, C., Adams, A., & Nagy, S. (1997). The Delphi method? *Nursing Research, 46*(2), 116-118.

Daly, J., Chang, E., & Bell, P. (1996). Clinical nursing research priorities in Australian critical care: a pilot study. *Journal of Advanced Nursing, 23*(1), 145-151.

Edwards, L. (2002). Research priorities in school nursing: a Delphi process. *Journal of School Heatlh, 72*(5), 173-177.

Fitzpatrick, E., Sullivan, J., Smith, A., Mucowski, D., Hoffman, E., Dunn, P., Trice, M., & Grosso, L. (1991). Clinical Nursing Research Priorities: A Delphi study. *Clinical Nurse Specialist, 5*(2), 94-99.

Griffin, J., Carroll, S., Devos, J., Kowba, M., Moran, J., O'Hare, J., Rushing, S., Tillman, H., & Viau, J. (1992). Nursing Research priorities for the care of the naval hospital patient: a Delphi study. *Military Medicine, 157*(11), 608-610.

Hasson, F., Keener, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing, 32*(4), 1008-1015.

Jones, F., Rice, V., Brown, P., Newman, B., Malcom, P., Gilmour, J., & Plymat, K. (1989, August 2). *Clinical nursing research priorities of community nurses in Western Sydney.* Paper presented at the NSW Nurses Research Interest Group Conference, Sydney, Australia.

Jones, J., & Hunter, D. (1995). Consensus method for medical and health services research. *British Medical Journal, 311*, 376-380.

Keeney, S., Hasson, F., & McKenna, H. (2001). A critical review of the Delphi technique as a research methodology for nursing, *International Journal of Nursing*.

Lindeman, C. (1975). Delphi survey of priorities in clinical nursing research. *Nursing Research, 24*, 434-441.

Lynn, M., Layman, E., & Englebardt, S. (1998). Nursing Administration research priorities: A National Delphi study. *Journal of Nursing Administration, 28*(5), 7-11.

Madigan, E. (2002). HHNA Research Committee Update. *Home Healthcare Nurse, 20*(4), 274.

Mead, D., & Mosely, L. (2001). The use of Delphi as a research approach. *Nurse Researcher, 8*, 4-37.

Monterosso, L. (2001). Priorities for paediatric cancerr nursing research in Western Australia: A delphi study. *Contemporary Nurse, 11*(2/3), 142-152.

Moreno-Casbas, T., Martin-Arribas, C., Orts-Cortes, I., & Comet-Cortes, P. (2001). Identification of priorities for nursing research in Spain: a Delphi study. *Journal of Advanced Nursing, 35*(6), 857-863.

Nappier, P., Stanfield, J., Simon, J., Bennett, S., & Cowan, C. (1990). Identifying clinical nursing research priorities. *Nursing Connections, 3*(2), 45-50.

Powell, C. (2003). The Delphi technique: myths and realities. *Journal of Advanced Nursing, 41*(4), 376-382.

Reid, N. (1988). The Delphi technique: its contribution to the evaluation of professional practice. In E. R. (Ed.), *Professional Competence and Quality Assurance in the Caring Professions* (pp. 230-254). New York: Chapman and Hall.

Salmond, S. (1994). Orthopaedic Nursing Research Priorities: A Delphi study. *Orthopaedic Nursing, 13*(2), 31-45.

Williams, P., & Webb, C. (1994). The Delphi technique: a methodological discussion. *Journal of Advanced Nursing, 19*, 180-196.

Appendices