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Abstract

This article reports findings from a qualitative study on nurse managers' perspectives of evidence-based practice (EBP) in residential aged care facilities (RACFs) in Taiwan. Six RACFs were randomly selected for inclusion in the study. The sample consisted of the nurse manager from each facility (N = 6) who participated in an in-depth interview. Thematic qualitative content analysis was used to identify patterns of experience. The majority of managers expressed positive attitudes toward research and EBP but reported little experience in its implementation. Barriers to EBP included individual barriers such as lack of motivation and confidence to embrace change. Research-related barriers included difficulty in finding and understanding research articles, and systemic barriers included lack of funding and time, lack of authority, and workplace culture. Some implications of these findings for policy and practice are discussed.

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Exploring attitudes and barriers toward the use of evidence-based nursing among nursing managers in Taiwanese residential aged care facilities

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Abstract

This article reports findings from a qualitative study on nursing managers' perspectives of EBP in residential aged care facilities (RACFs) in Taiwan. Six RACFs were randomly selected for inclusion in the study. The sample comprised the nursing manager of each facility (N = 6), who participated in an in-depth interview. Qualitative content analysis of the data using thematic content analysis, was used to identify patterns of experience. The majority of managers expressed positive attitudes towards research and EBP but reported little experience in its implementation. Barriers to EBP included individual barriers such as lack of motivation and confidence to embrace change. Research related barriers included the difficulty in finding and understanding research articles and systemic barriers included lack of funding and time, lack of authority and workplace culture. Some implications of these findings for policy and practice are discussed.

Background

The benefits of EBP are frequently discussed in the international literature. Additionally, managers in the health system are increasingly demanding a practitioner approach that explicitly values and pursues practice based on evidence of feasibility,

appropriateness, meaningfulness and clinical effectiveness (Bonner & Sando 2008). O'Rourke (1998) argues that EBP is one way to keep patients safe from ineffective and possibly dangerous interventions and Melnyk and Fineout-Overholt (2005) note that if EBP that is derived from high quality research is embedded in practice, this will improve and reduce variability in practice, and improve the cost effectiveness of care delivery. However, even though nursing practitioners may express positive attitudes towards EBP, the application of EBP guidelines does not necessarily follow (Egerod & Hansen 2005). The reasons given for this include individual attributes such as lack of confidence, the organizational context, including a shortage of time, inadequate support from managers in the workplace and lack of authority; and research-related issues including the complexity of the presentation of research articles (Chang, Russell, & Jones, 2010; Glacken & Chaney 2004; Mehrdad et al., 2008a).

Surveys of registered nurses have reported that the most frequently reported barriers to the use of research in practice relate to organisational aspects including a lack of support from nursing managers (Chang et al., 2010; Griffiths et al., 2001; Melnyk, 2002; Salsali & Mehrdad 2009). Managerial support and strategic vision at all levels of the workplace hierarchy, including nursing managers, are needed to implement EBP. Nursing managers are responsible for creating an institutional climate that fosters and promotes the use of research and support from nursing managers has been shown to correspond with nurses' use of research findings in practice (Le May et al., 1998). Clearly, because of their ability and power to shape the practice environment, managers can act as advocates for innovation based on EBP and facilitate the dissemination and utilisation of research findings (Briones & Bruya 1990; Goode & Bulechek 1992). Therefore, nurse managers have a key role in establishing an organizational and unit culture that supports EBP (Ferguson & Day 2007; Royle, Blythe, Ciliska, & Ing, 2000).

However, there is little research looking at attitudes toward, and barriers against

implementing EBP for nursing managers. Additionally, there is a paucity of research specifically targeting the perception of EBP in nursing managers working in residential aged care facilities (RACFs) and little is known about the development of EBP in non-Western countries where the health care and nursing education systems differ from those in the West. In light of this, our paper reports on a study that employs interviews to explore and describe data from nursing managers working in RACFs regarding research implementation in practice. We anticipate that our findings into the potential barriers and facilitators to EBP will provide evidence to assist with the implementation of EBP in RACFs so as to enhance client quality of care and cost effectiveness.

Method

A qualitative method was utilized in order to develop a more complete understanding of the complex and interacting factors around the phenomenon of EBP in RACFs in the Hsinchu district of Taiwan. This approach to data collection is indicated here because no previous research on EBP has specifically focused on nursing managers and no existing questionnaire includes items relating to their administrative work.

Sample selection

Hsinchu is one of 16 districts in Taiwan. It is located on the north-east coast of Taiwan and contains a medium-sized city as well as surrounding townships. Hsinchu has a total of 12 RACFs registered with the Taiwan Department of Health. From these 12, six were randomly selected for inclusion in the study. The method used was a lottery draw which involved placing twelve numbered slips in a container and selecting one at a time without looking until six numbers were drawn. The study sample comprised the nursing manager of each facility ($N = 6$), who participated in an in-depth interview.

Data collection

A semi-structured interview technique was chosen as it allows the researcher to adapt questioning to the respondents' understanding of the topic under discussion.

Open-ended questions allow the researcher to gain insight into the opinions and values of the interviewee (Burns, 2000) and permit unanticipated information to emerge. Each interview covered the following broad topic areas: their views about research and EBP generally; their experiences of participation in research activities; their views and experience of EBP in RACFs; their perceptions of barriers to the implementation of evidence-based practice in RACFs.

The interviews were conducted by the first author and took approximately one hour. Four of the six managers were contacted for a follow-up interview since two of the interviewees raised new issues (the political and economic context of health care in Taiwan and the 'enforcement' function of management in implementing EBP) that were deemed important enough to warrant further exploration with all six participants. Thus, four of the interviewees were contacted approximately two months after their initial interviews so as to provide the opportunity for them to discuss these new issues. All the interviews were digitally recorded and fully transcribed. Throughout the interviewing the first author also kept two reflective research journals, a personal log and an analytical log (Minichiello et al., 1995; Koch & Harrington 1998). The interviews were conducted in Chinese (the interviewee is a native speaker) and digitally recorded with concurrent written memos, then transcribed in full and translated into English for thematic content analysis. Translations were carried out and verified for accuracy by two accredited Chinese to English translators.

Ethical considerations

Ethical approval for this study was obtained from each nursing home and the University of Sydney Human Research Ethics Committee. Interview participants were given written and verbal information about the purpose of the study and its procedures before signing the consent form at the time of the interview. To protect confidentiality we have allocated pseudonyms to the managers.

Data Analysis

The data from the interviews were analysed using thematic content analysis. The nursing managers' interviews were read several times by the first author and notations were made of key concepts, paraphrases and quotations. An inductive approach to thematic analysis was used that allows themes to emerge from the data, rather than searching for pre-defined themes. During the first reading notes were made of major issues in order to acquire a sense of the various topics embedded in the data. The next stage involved examining the text line by line, to facilitate a micro analysis of the data. The items of interest were sorted into proto-themes, where themes begin to emerge by organizing items relating to similar topics into categories. A provisional name and flexible definition was created for each emerging theme. The second process of trawling back through the data involved re-contextualization, whereby any data was now considered in terms of the categories developed through this analysis. The final stage in this process involved constructing the final form of each theme. The name, definition and supporting data were re-examined for the final construction of each theme, using all the material relating to it. An audit trail that recorded personal reflections and methodological decisions was created and reviewed by members of the research team.

Findings

The Participants

The six participants were all employed as nursing managers in RACFs. The majority of the RACFs were attached to teaching or local district hospitals. The managers were all female, working full-time and worked in aged care nursing for a minimum of 5 years. All had tertiary qualifications from Taiwanese Universities.

Barriers to implementing evidence-based practice

The nursing managers identified a number of *individual barriers*, *research-related barriers* and *systemic barriers* to accessing and implementing EBP.

Individual Barriers to EBP

The main individual barriers included: lack of understanding of EBP; lack of experience in the implementation of research evidence and lack of motivation and confidence to embrace change.

(1) Lack of understanding of EBP

The managers had differing degrees of understanding of EBP. One manager offered a clinical example to illustrate her understanding of implementing EBP.

Wen: For instance, in urinary catheter care we used to change the urine bag fortnightly, because that's what the older colleagues said. But later research revealed that this is not a good thing because it reduces the closed system and leads to infections. So when we looked up the literature it did say that fortnightly change is unnecessary, and we've changed the rule now.

Two managers had a vague idea of EBP but were unable to define its meaning. For example:

Len: I might not know a lot about its purpose, because my work involves a lot of things, it's a bit 'everywhere'. Don't really know it.

However, all managers showed a positive attitude towards EBP. Two managers gave an example of how patient care and safety might be affected.

Wen: There's a lot of research and we are able to base our practice on research evidence to increase the quality of patient care.

Su: There are lots of improvements we can make by referring to the literature. Like recently, we've been simplifying and revising some procedures based on research

findings, to make things easier, save time and reduce some danger in thing such as falls.

However one manager emphasized the gap between theory and practice, by suggesting that what is written in the nursing literature is not necessarily practised.

Wen: There's the issue of the continuous intravenous drips. According to the rule it has to be inserted at a different place every three days, even if there's no sign of swelling. We've been doing this without any evidence of benefit from the literature.

(2) Lack of experience in the implementation of research evidence

Few of the managers indicated they had much direct experience of implementing research evidence.

Len: At this stage, we never ever apply research findings to our resident or care.

Instead, the source of knowledge used to guide their clinical practice was for the most part informed by procedural manuals and protocols, past experience and customary practices and directions from senior nurses. For example:

Sue Chen: It makes more sense to do things according to my previous experiences, or what senior nurses are doing, or what the standard textbook teachings say rather than checking out new theories out there. We are still doing things in the old way.

One manager also mentioned the hospital protocol detailed in procedural manuals and "common wisdom" as guides for clinical practice.

Su: The hospital's standard procedures. There's usually a standard book [procedural manual] to follow for every procedure ... If I found something different I'd just keep it as reference ... I also follow "common wisdom".

(3) Lack of motivation and confidence to embrace change

Three managers considered themselves and their nursing staff as lacking in motivation and self-confidence. For example;

Sue Chen: Yeah, lack of motivation and confidence ... Most of them [nurses] would think that as long as the residents don't fall or there's no other accident like that, then it's all fine. That's how they see their jobs.

Research related barrier to EBP

The main research-related barrier raised was the difficulty in finding and understanding research articles. For example:

Su: It's frustrating and scary ... I start searching and then give up.

Wang: I think we do find it difficult, looking up literature from databases.

The inability to critically analyse research articles was also perceived as a problem. Su expressed this in her response:

Su: I was not able to critique it because I did not know how. Interpreting research articles is something I have never done before. Sometimes you feel that something needs to be done urgently and you want to find some data on it, but it's not easy.

The interpretation of statistical data was then named by all managers as a major barrier. Two managers stated that they often took “short cuts” in the appraisal process when faced with statistical material. For example:

Su: There are lots of statistics involved. So I have to learn statistical analysis to tell if they are presenting significant results or just a probability. I will read the article, but for the statistical part, I always jump to the next section.

Wang: ... I just stop reading it and move to next section.

All the managers expressed difficulty in reading and understanding research articles written in English. For example;

Wen: Most research literature is written in English. It is hard for nurses.

Chen: There are very few Chinese articles, most of them are in English. .. it's frustrating.

Systemic barriers to EBP

The main systemic barriers raised were lack of funding and time, lack of support and authority, and the culture of the workplace. All the managers identified a lack of funding as a central issue and agreed that time constraints act as a barrier to learning new skills and reading journal articles to increase their knowledge base.

(1) Lack of funding and time

A lack of funding emerged as the central issue in the following interrelated themes identified by all of the nursing managers: time, staffing, workload, and education opportunities for all nurses. As an example, one nursing manager pointed out the

interrelationship between the lack of funding, which caused staff lay-offs and shortages, and increased workloads, all of which leads to less time available to implement research findings.

Chen: Due to lack of funding every time there's talk of dismissals the nurses are the first to go. Then the remainder become stressed as they have more work to do. That may cause more staff to leave. Of course there is no time to do other extra things.

Len: ... it takes a lot of time to read them [journal articles]. The hospital won't provide any material encouragements and they will not have funding in this area.

(2) Lack of support and authority to implement change

Five managers identified a lack of support and authority from other health professionals and the heads of their institutions to introduce and implement change. The hierarchical staff ladder and the traditional view of nursing as a low status profession were seen as presenting barriers in a cultural context. For example:

Sue Chen: Because long-term care centres are relying on the decision-making from the administration [head of institution], they might not always choose to be supportive.

Su: I think I'd just follow what they say. It's the administration's [head of institution] decision when to change things.

Len: ... Just according to what the head of hospital and the doctors perceive. The doctor is the main person to make decisions.

(3) The culture of the workplace

Two managers expressed the view that they are not regarded as professionals by medical staff or patients. As such they lacked confidence in voicing their opinions about the benefits of EBP since they felt their lack of status as autonomous knowledgeable health care professionals meant that their views would not be heard. For example:

Wang: ... the nurses are not treated as professionals ... in terms of our pay I don't think we get what we deserve... it seems to me that we are only doing manual work, like 'maids'.

Len: Some nurses see themselves as medical assistants.

Due to the strong tradition of nursing hierarchical practice in Taiwan three managers indicated the phenomenon of “preceptor knows best” as a cultural barrier to the implementation of EBP. Junior nurses who have recently experienced “state of the art” training, would not commonly question senior nurses. In this hierarchical structure it is difficult for staff to voice their doubts or practise what they themselves have learned in colleges. For example:

Sue Chen: If a problem arises in a clinical setting, and a staff member consults with a more senior nurse, but there are contradictions or uncertainties, she feels powerless to comment.

Wen: When you first qualify, you have always got more senior nurses and you will ask them about your cases, if you are unsure, because they have got more experience. They will say “go and do this” and you will think that was a good decision.

Discussion

Overall the nursing managers showed positive attitudes to research and EBP and this is in keeping with previous research findings which were focused on non-manager nurses (Mehrdad et al., 2008a,b; Olade, 2003; Veeramah, 2004). Despite this, they did not consistently use research findings in their practice. Clearly, a positive attitude towards research is a significant and necessary variable but is not in itself sufficient to influence the utilisation of research findings in practice. Part of the explanation may be due to the fact that nurses in Taiwanese RACFs have to work under considerable time pressure and focus on the immediate and practical concerns. Studies in Sweden and Australia have also found that most nurses do not have experience of EBP implementation and rarely engage in active research themselves (Gerrish & Clayton 2004; Veeramah, 2004; Wright et al., 1996).

Nursing managers agreed that the academic presentation, inaccessibility of research and difficulty with the English language are substantial barriers which contribute to their lack of understanding. This result concurs with those from the literature which suggest many nurses do not understand research reports because of the use of specific, mainly academic research terms (McGarvey, 1993); the difficulty encountered with interpreting the results of research studies (Lacey, 1994); the inability to understand statistical analysis (Kuuppelomaki & Tuomi 2003; McCaughan et al., 2002; Veeramah, 2004) and the difficulty in understanding English (Oranta et al., 2002).

Accessibility to published research was also a problem. This may be influenced by a lack of availability of resources in Taiwanese RACFs. In the experience of the first author, clinical nurses in Taiwan are not in the habit of using libraries and internet resources for work-related issues and nursing courses have not required the regular reading of journal articles. Thus they may not be familiar with appropriate databases and may lack the skills to search for and retrieve relevant articles. The findings also

demonstrated that budgetary constraints effected EBP implementation. Consistent with this, participants in a study conducted by Newhouse (2005) suggested that a budget to provide nurses with time to conduct EBP projects was one of the most important strategies to facilitate EBP.

The managers also perceived a lack of authority to instigate change in the clinical setting as a major barrier. This concurs with findings in which nurses' perceived lack of authority is among the most commonly cited barriers to research utilization within practice (Funk et al., 1995; Kajermo, Nordstrom, Krusebrant, & Lutzen, 2001). Finally, the majority of the managers revealed aspects of nursing culture, such as its hierarchical structure, as one of the context barriers for EBP implementation. Such an environment presents a challenge for the necessary changes that would enable the implementation of EBP. This issue was also identified by registered nurses in Taiwan (Chang et al., 2010).

These findings have implications for policy and practice. Nurse managers need to be given adequate resources and ongoing educational support. A first step is to ensure that all nurse managers are provided with access to technology such as computers with internet access to academic databases so they can conduct literature searches. At the same time organisations need to provide educational support and training so that nurse managers are confident and skilled when undertaking these searches. Workshops on how to understand and critique academic sources such as journal articles need to occur. Journal clubs as a forum for research article discussion could be conducted using technologies such as Skype so that aged care nurses from countries outside Taiwan could be involved and information shared. Organisations also need to ensure that nurses are given time during their working day to engage in these professional development activities. Finally, directors or heads of RACFs need to recognise the vital role that nurse managers play in the development of clinical pathways and practice development

and we suggest that nurse managers should have membership on clinical governance committees. It is anticipated that these strategies will increase motivation and confidence and assist with empowering nurse managers to be clinical leaders in their workplace and support their nursing staff in adopting EBP.

It is expected that the policy and practice changes we have suggested will help overcome the barriers to EBP and result in improved quality of patient care and cost effectiveness of care delivery within RACFs in Taiwan. Nevertheless, research needs to be conducted that examines whether these strategies are useful and, if so, the extent to which they are able to change the attitudes of nurse managers and overcome the barriers to EBP identified in this study.

Study Limitations

It was not our purpose to represent the wider population of nursing managers. Our purpose was to extend the contemporary understanding of nursing managers' perceptions of EBP in RACFs in a non-Western context. As such cultural and practice contexts and health care and education systems may differ significantly between Taiwan and Western countries such as the USA and findings from Western and non-Western countries may differ. Finally, the research has predominantly taken shape in and through the interpretive work of the first author. Thus, it is acknowledged that the interpretation of the interviews has been guided by the interests, values, and desires of the first author.

Conclusion

The majority of nursing managers expressed positive attitudes towards research and EBP but had relatively little experience in its implementation. A number of barriers to EBP were identified. These included individual barriers, research related barriers and systemic barriers. These findings contribute to the literature as there is a paucity of

research investigating nursing manager's perceptions of EBP in RACFs in non-Western countries. Further research needs to be undertaken in non-Western countries such as Taiwan to further explore this important issue.

References

- Anderson, R. (1998). Intuitive inquiry: A transpersonal approach. In W. Braud & R. Anderson, *Transpersonal research methods for the social sciences: Honoring human experience* (pp. 69-94). Thousand Oaks, CA: Sage Publications.
- Bonner, A., & Sando, J. (2008). Examining the knowledge, attitude and use of research by nurses. *Journal of Nursing Management*, 16(3), 334-43.
- Briones, T., & Bruya, M. A. (1990). The professional imperative: research utilization in the search for scientifically based nursing practice. *Focus on Critical Care*, 17(1), 78-81.
- Burns, R. B. (2000). *An introduction to research methods*. London: Sage.
- Chang, H. C., Russell, C., & Jones, M. K. (2010). Implementing Evidence-Based Practice in Taiwanese Nursing Homes. *Journal of Gerontological Nursing*, 36(1), 41-48.
- Egerod, I., & Hansen, G. M. (2005). Evidence-based practice among Danish cardiac nurses: a national survey. *Journal of Advanced Nursing*, 51(5), 465-73.
- Ferguson, L. M., & Day, R. A. (2007). Challenges for new nurses in evidence-based practice. *Journal of Nursing Management*, 15(1), 107-13.
- Funk, S. G., Champagne, M. T., Tornquist, E. M., & Wiese, R. A. (1995). Administrators' views on barriers to research utilization. *Applied Nursing Research*, 8(1), 44-9.
- Glacken, M., & Chaney, D. (2004). Perceived barriers and facilitators to implementing research findings in the Irish practice setting. *Journal of Clinical Nursing*, 13(6), 731-40.
- Goode, C., & Bulechek, G. M. (1992). Research utilization: an organizational process that enhances quality of care. *Journal of Nursing Care Quality*, 27-35.
- Griffiths, J. M., Bryar, R. M., Closs, S. J., Cooke, J., Hostick, T., Kelly, S., & Marshall, K. (2001). Barriers to research implementation by community nurses. *British Journal of Community Nursing*, 6(10), 501-10.
- Kajermo, K. N., Nordstrom, G., Krusebrant, A., & Lutzen, K. (2001). Nurses' experiences of research utilization within the framework of an educational programme. *Journal Clinical Nursing*, 10(5), 671-81.
- Koch, T., & Harrington, A. (1998). Reconceptualizing rigour: the case for reflexivity. *Journal of Advanced Nursing*, 28(4), 882-90.
- Kuuppelomaki, M., & Tuomi, J. (2003). Finnish nurses' views on their research activities. *Journal of Clinical Nursing*, 12(4), 589-600.
- Lacey, E. A. (1994). Research utilization in nursing practice--a pilot study. *Journal of*

Advanced Nursing, 19(5), 987-95.

- Lacey, A., & Luff, D. (2001). *Trent Focus for Research and Development in Primary Health Care: An Introduction to Qualitative Analysis*. Trent Focus.
- Le May, A., Mulhall, A., & Alexander, C. (1998). Bridging the research-practice gap: exploring the research cultures of practitioners and managers. *Journal of Advanced Nursing*, 28(2), 428-37.
- McCaughan, D., Thompson, C., Cullum, N., Sheldon, T., Trevor, A., & Thompson, D. (2002). Acute care nurses' perceptions of barriers to using research information in clinical decision-making. *Journal of Advance Nursing*, 39(1), 46-60.
- McGarvey, H. E. (1993). Participation in the research process. *Action research in nursing. Professional Nurse*, 8(6), 372-6.
- Mehrdad, N., Salsali, M., & Kazemnejad, A. (2008a). Iranian nurses' attitudes toward research utilisation. *Journal of Research in Nursing*, 13(1), 53-65.
- Mehrdad, N., Salsali, M., & Kazemnejad, A. (2008b). The spectrum of barriers to and facilitators of research utilization in Iranian nursing. *Journal of Clinical Nursing*, 17(16), 2194-202.
- Melnik, B. M. (2002). Strategies for overcoming barriers in implementing evidence-based practice. *Pediatric Nursing*, 28(2), 159-61.
- Melnik, B. M., & Fineout-Overholt, E. (2005). Evidence-based practice in nursing and healthcare: A guide to best practice. New York: Lippincott Williams and Wilkins.
- Minichiello, V., Aroni, R., Timewell, E., & Alexander, L. (1995). *In-depth Interviewing*. Melbourne: Longman.
- Newhouse, R. P. Dearholt, S., Poe, S., Pugh, L. C., & White, K. M. (2005). Evidence based practice: A practical approach to implementation. *Journal of Nursing Administration*, 35(1), 35-40.
- O'Rourke, M. (1998). From research to clinical practice: Do patients receive consistent information from care providers? *Clinical Journal of Oncology Nursing*, 2(1), 29-30.
- Olade, R. A. (2003). Attitudes and factors affecting research utilization. *Nursing Forum*, 38(4), 5-15.
- Oranta, O., Routasalo, P., & Hupli, M. (2002). Barriers to and facilitators of research utilization among Finnish registered nurses. *Journal of Clinical Nursing*, 11(2), 205-13.
- Royle, J., Blythe, J., Ciliska, D., & Ing, D. (2000). The organizational environment and evidence-based nursing. *Canadian Journal of Nursing Leadership*, 13(1), 31-7.

- Salsali, M., & Mehrdad, N. (2009). Iranian nurses' constraint for research utilization. *BMC Nursing*, 8, 9.
- Veeramah, V. (2004). Utilization of research findings by graduate nurses and midwives. *Journal of Advanced Nursing*, 47(2), 183-91.
- Wright, A., Brown, P., & Sloman, R. (1996). Nurses' perceptions of the value of nursing research for practice. *Australian Journal of Advanced Nursing*, 13(4), 15-8.