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Providing education and support for rural palliative care nurses in Western Australia: An intervention study

Ruth McConigley
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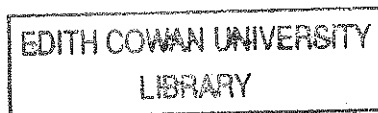
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**PROVIDING EDUCATION AND SUPPORT FOR RURAL
PALLIATIVE CARE NURSES IN WESTERN AUSTRALIA: AN
INTERVENTION STUDY**

**Ruth McConigley
RN, BSc (Nursing), MN**

**This thesis is presented in fulfilment of the requirements for the degree of Doctor
of Philosophy**

**Faculty of Computing, Health and Science
Edith Cowan University**



December 2004

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

ABSTRACT

Rural palliative care nurses (RPCNs) in Western Australia (WA) are a small population, who have embraced the specialist palliative care role since the first palliative care service in rural WA began in 1990. However, there are some challenges involved with being a specialist nurse in a generalist health care setting. In particular, there is a suggestion in the literature that RPCNs may be professionally isolated, may be prone to burnout, and may therefore experience decreased job satisfaction and may consider leaving the palliative care field.

The purpose of this study was to examine the challenges faced by RPCNs, and to determine if an education-based intervention would be successful in decreasing reported professional isolation and burnout for this group, and therefore increase levels of job satisfaction. By addressing these issues it was anticipated that RPCNs would be less inclined to consider leaving palliative care.

A two-phase study was used to test this hypothesis. Phase I involved conducting a learning needs assessment of RPCNs in WA ($n=45$), to determine what sort of education intervention would be appropriate for this group. The results indicated that RPCNs wanted education provided in rural areas, with an emphasis on providing for the physical care needs of palliative care patients, in particular pain and symptom management. An education intervention was planned that would assist senior RPCNs in providing palliative care education for other health professionals in rural communities. Workshops were held in six rural locations that aimed to provide the skills and knowledge for RPCNs to fulfil the role of palliative care educator. Attendees at the workshops were also given a package of education materials to assist them.

Phase II of the project involved the implementation and evaluation of the intervention. A pretest-posttest design ($n=36$), with a posttest comparison group ($n=29$), was used to test for changes in professional isolation, burnout, job satisfaction and intention to leave over time. RPCNs were surveyed before the workshop, immediately after the workshop, and three months after the completion of the workshop. The evaluation showed that providing rural specific education sessions might assist in decreasing reported levels of professional isolation, $F(2, 34)=10.45$, $p=0.000$. Attendance at an education session may also decrease reported levels of burnout, in particular, the level of emotional exhaustion, $F(2, 33)=5.64$, $p=0.001$. Unexpectedly,

the evaluation also found that three months after the workshops RPCNs indicated a greater intention to leave than they had prior to the workshops ($t(35) = -2.26, p = 0.03$). However, there were no significant differences in the levels of professional isolation, burnout and intention to leave, at the three-month time point, between the intervention group and the comparison group. It is possible that there may have been other factors affecting RPCNs during the evaluation time, and therefore the results of this study are presented with caution.

A conceptual framework was developed that described the relationships between professional isolation, burnout, job satisfaction and intention to leave. The framework shows a positive correlation between professional isolation and emotional exhaustion, and a negative correlation between professional isolation and job satisfaction. There was also a negative correlation between emotional exhaustion and job satisfaction. Furthermore, as job satisfaction decreased and emotional exhaustion increased, RPCNs indicated a greater intention to leave palliative care.

The findings of this study have contributed to the understandings of the issues and challenges related to rural palliative care nursing. Also, the importance of providing rural specific education has been underscored. Further research about professional isolation and rural palliative care nursing, in particular, the effects of professional isolation for RPCNs and ways of coping with professional isolation need to be examined. It is also essential that reasons that RPCNs leave clinical practice be studied with the aim of retaining these specialist rural nurses.

DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

- (i) incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education.
- (ii) contain any material previously published or written by another person except where due reference is made in the text; or
- (iii) contain any defamatory material.

I also grant permission for the Library at Edith Cowan University to make duplicate copies of my thesis as required.

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LIST OF ABBREVIATIONS

| | |
|------|--|
| ABS | Australian Bureau of Statistics |
| AIHW | Australian Institute of Health and Welfare |
| CPCM | Confidence in palliative care measure |
| DP | Depersonalisation |
| EE | Emotional exhaustion |
| HDWA | Health Department of Western Australia |
| Km | Kilometre |
| MBI | Maslach Burnout Inventory |
| PA | Personal accomplishment |
| PIMS | Professional isolation measurement scale |
| RPCN | Rural palliative care nurse |
| WA | Western Australia |

CHAPTER ONE

BACKGROUND AND SIGNIFICANCE

Introduction

Palliative care improves the quality of life of patients and families who face life-threatening illness, by providing pain and symptom relief, spiritual and psychosocial support from diagnosis to the end of life and bereavement (World Health Organisation, 2004).

The modern specialty of hospice/palliative care began in London in the 1960s, and since then palliative care has become an increasingly accepted part of mainstream health care internationally. Palliative care provides symptom management, psychosocial and spiritual care and bereavement support for patients with a life threatening illness and also for their families. The benefits of palliative care and the provision of appropriate end-of-life care to patients and families are well documented (Higginson et al., 2003). The primary benefit of palliative care is the lessening of suffering and distress for patients and families. Other benefits relate to the community focus of palliative care. The benefits include improved health resource allocation; this enables people to die in a community or non-acute health care setting, freeing acute care services from the demands of providing care for the dying. There are also economic benefits related to provision of palliative care in a non-acute and thus less costly health care setting (Payne, Coyne & Smith, 2002). As the benefits of palliative care have become evident, palliative care has been embraced in rural health care as well as in urban health care settings.

Palliative care has become a common part of health care practice in rural areas. Many small rural hospitals and health services now have dedicated hospice rooms and palliative care nurses, and are able to provide the equipment required to provide end-of-life care in the rural setting. This is largely due to the enthusiasm that rural communities have shown for palliative care (Eldridge, 1988). Rural palliative care services rely heavily on volunteers to assist with fundraising and caregiving. Rural communities, with their strong emphasis on volunteering and community service, have embraced palliative care as a worthy cause. Community support has assisted the acceptance of palliative care in the rural health care setting, and has facilitated the rapid

increase in rural health care services that offer palliative care services to rural communities. In particular, the spread of palliative care into rural areas has seen an increase in the number of nurses undergoing extensive training and working as specialist palliative care nurses. This increase in trained palliative care professionals has raised the standard of care offered to those who choose to die in a rural location (Sach, 1997).

Providing palliative care in rural areas offers some challenges unique to this setting, that is, rural palliative care is different to palliative care provided in urban centres (McConigley, 2000). The major difference is the care setting itself; urban areas have a high concentration of health care services, including sophisticated diagnostic equipment, treatment centres and rehabilitation facilities, as well as highly skilled specialist medical, nursing and allied health staff. Rural centres generally have fewer health care facilities overall, and rarely offer a full range of diagnostic, treatment and specialist services (Australian Institute of Health and Welfare [AIHW], 1998). The nature of health care services differs markedly in rural areas, compared to urban centres, because of the lack of available specialist health care services in rural areas. Rural health care services are characterised by their generalist nature (Hegney, 1997). The limited array of available health care services in rural settings places demands on rural palliative care professionals to provide for all of the health needs of rural communities, with assistance available in specialised urban centres when required.

The generalist nature of rural health care has made the transition of palliative care into rural areas problematic at times. There have been some specialist services provided in rural areas in the past, for example, fly-in fly-out medical specialists visit many country areas of Australia (Rankin et al., 2002), and specialist nursing services such as diabetes and continence advisors are found in many larger rural health services (Dunning, Brown, Phillips & Ayres, 1994). However, rural palliative care services have introduced a permanent specialist health care service into many rural towns that in the past have had access to only occasional specialist services. The incursion of palliative care specialist services into the traditionally generalist rural health setting has led to the need to re-examine how health care is provided in rural settings. In particular, it is necessary to ascertain how specialist services such as palliative care services can be staffed and funded, and palliative care professionals can be educated and supported in a generalist setting.

Education, support and retention of rural palliative care providers have all been identified as areas that are of concern in rural palliative care practice (McConigley, 1998). In isolated rural areas it can be difficult for health professionals to access appropriate palliative care education and resources, making the transition to rural specialist difficult. Isolation can also influence the amount of support available to health professionals working in the often challenging and stressful field of palliative care. In smaller rural centres there may be only one palliative care nurse providing services to the community, making it difficult for that provider to debrief with colleagues after stressful incidents. Other health care providers in town, that are not directly associated with providing palliative care, may have only limited understandings of the demands faced by sole palliative care practitioners and may therefore be unable to provide needed support. In response to difficulties relating to isolation, health professionals may choose not to remain in palliative care roles for extended periods, necessitating recruitment and training of new staff in an already short-staffed rural healthcare workforce.

This research thesis presents a project conducted to ascertain the effects of isolation on rural palliative care nurses (RPCNs) in Western Australia. The project was undertaken to determine the extent to which professional isolation was a problem for RPCNs, whether it was related to burnout in the workplace, and whether interventions aimed at increasing support and educational opportunities would affect feelings of isolation and burnout. It was anticipated that by providing support and educational opportunities to RPCNs, they would describe fewer feelings of professional isolation, be less inclined to burnout, and would have increased feelings of job satisfaction and greater intention to remain in their palliative care role.

This study was conducted to provide support to nurses in Western Australia who were involved in providing palliative care in rural communities. The project had two phases:

- Phase I: A needs assessment and survey of issues of importance to rural palliative care nurses, and the development of an education intervention for RPCNs
- Phase II: The implementation of an intervention to meet the education and support needs of rural palliative care nurses, plus an evaluation of the feedback regarding the intervention, and an assessment of the effectiveness

of the intervention in alleviating burnout and professional isolation and enhancing job satisfaction.

Each of the phases of this project will be detailed in this thesis, as will findings arising from the project. A discussion of results and recommendations arising from the research will be presented.

Statement of the Problem

Palliative care has expanded rapidly into rural health care settings, requiring providers to adapt to the demands of this new health care specialty. The expansion of palliative care has occurred in an *ad hoc* manner, generally because of growing community interest in palliative care, and often with little pre-planning or direction (Eldridge, 1988; Freudenberger, 1991). This has led to the needs of palliative care providers in rural areas being largely overlooked by researchers and workforce planners. There is little information about the issues facing RPCNs, or about the needs of this group. Without empirical data about RPCNs it is difficult to attempt to meet their education and support needs and to plan for future service provision.

In particular, there is a need to explore issues of professional isolation and burnout for RPCNs, because it is likely that RPCNs experiencing either of these would be at risk of leaving their palliative care role. The current shortage of health professionals in rural areas (AIHW, 2003) combined with the degree of knowledge required to practice in the specialty area of palliative care, make it imperative that attention be paid to supporting this group of health professionals in their clinical practice. Gaining a clearer understanding of the issues facing RPCNs, and ascertaining any inconsistencies in their professional role, will assist in planning interventions that will allow RPCNs to cope with the demands of their palliative care role and therefore to continue to provide a high standard of palliative care to rural communities.

Background to the Study

Rural Western Australia

Western Australia (WA) is the largest and most isolated state of Australia, covering approximately one third of the total continent of Australia. It comprises an area of 2.5 million square kilometres, being more than 2,400 kilometres (km) from north to south and 1600 km from east to west, and includes 7000 km of coastline. The southern coastal areas are temperate and densely populated. Northern coastal regions are tropical and there are several large towns scattered on the northern coast. Central

WA is predominantly desert, with small isolated communities that are mostly either mining towns or remote indigenous communities (Encyclopaedia of Australia, 1996). The capital city of Perth is located in the southwest of the state, adjacent to the coast. Perth is the only large urban centre in WA.

The total population of Western Australia has increased rapidly in the past 15 years, and there is now over 1.85 million people living in Western Australia. Less than 30% of the total Western Australian population (511, 000 people) live in rural areas, the remainder live in the metropolitan area of Perth (Australian Bureau of Statistics [ABS], 2003). The proportion of the total population residing in rural WA is decreasing, however, specific areas have shown a marked population growth since 1986. This is an unusual trend in Western countries, and is related to the development of tourist resorts and retirement communities in rural coastal areas, increased mining interests, the increased popularity of hobby farming in the rural-urban fringe, and an increase in the number of long distance commuters who travel to urban centres for employment reasons (Shu, Goldlust, McKenzie, Struik & Khoo, 1996).

Defining Rural in Western Australia

There is currently no one accepted definition of rural that can be applied to Australian conditions when considering health services and health service provision (Humphries, 1998). Definitions that rely on population statistics are rarely used to describe rurality, because population density alone does not give a clear understanding of resource allocation in rural areas, and therefore a population density based definition will not present a true picture of rurality (Jordan & Hargrove, 1987). More comprehensive measures that take into account not only population, but also geographical constraints associated with life in a certain district, such as distance from urban centres, are also in use by some agencies (ABS, 2001). However, this type of rurality indicator will also not provide a good understanding of health care issues in a rural area, because again resource availability is not considered. When considering health and rurality it is important to consider the allocation of health resources in rural areas. However, rural health researchers have struggled to define rural in terms of health services available to a community, and use variables such as the presence of a general medical practitioner (Thornton, 1992), or the availability of health support services such as allied health (Hegney, 1997) to define rurality.

For the purposes of this research project, rural was defined using the boundaries established by the Health Department of Western Australia (HDWA)(now the

Department of Health). That is, a rural healthcare setting was defined as being any health care service that was not included in the Metropolitan Health Services Board jurisdiction. The Metropolitan Health Services Board was the overseeing body for all health services in metropolitan Perth at the time when this research commenced. Appendix A shows the boundaries of the Perth metropolitan area; all areas outside this area were considered rural for the purposes of this study. Any nurse working in a health care setting not included in the Metropolitan Health Services Board jurisdiction was considered to be working in a setting defined as rural, and was therefore defined as being a rural nurse. This definition includes regional centres, that is, those rural towns that have most of the services and resources available in a geographical region of the state.

Regional centres in WA such as Geraldton, Bunbury and Albany all have populations greater than 30,000 people and have more than 20 General Medical Practitioners working in the town. The size of these towns and the number of medical practitioners working in the town would see these towns excluded from many definitions of rural. However, these towns have limited support and education facilities for health professionals (AIHW, 1998), and are often geographically isolated, thus having some characteristics of a rural town according to more traditional definitions.

Nurses working in remote towns in WA were not included in this definition of rural nurses, because despite remote towns being located in the area defined as rural Western Australia, the lack of health services in these areas suggest that nurses working in these areas would have very different experiences of providing health care than nurses in rural areas. Remote towns were defined as towns “geographically isolated from public amenities, community services, acute hospital and medical facilities” (Kreger, 1992-1993, p.32).

Rural Western Australia – Issues in Healthcare

There are vast inequities in the Australian healthcare system, particularly when examining differences between rural and urban healthcare infrastructure (Humphries & Nichols, 1995). There is often a limited choice of health care practitioners and facilities available to rural Western Australian communities, and care must be sought at large urban healthcare facilities that are often long distances away. The size of WA means that many people live in rural areas more than 500 km from Perth, and some live more than 3,500 km away. Complex diagnosis and treatment of illness generally occurs in teaching hospitals in Perth because there are few specialist medical services available in

rural WA. Resources and funding are limited in rural areas, with most health care funding being allocated to urban health centres. The cost of increasing healthcare infrastructure in rural areas is high, and population increases in rural Australia are often not matched with increased service provision (Shu et al., 1996). Services supplied to rural areas may be inappropriate, because planning is generally undertaken in urban areas with little input from rural consumers (Harvey, Sandhu & Strasser, 1995). The inequities in rural health care have been widely debated by a succession of state and federal governments; however, little has been achieved in addressing the dilemmas in rural health.

Rural Nursing Practice

Nursing in rural areas is acknowledged to be much different from nursing in urban health care settings (Long & Weinert, 1992). Rural nurses have a unique approach to giving care, a product of working conditions far different than those of their urban counterparts. Most rural nurses are expected to be generalists, providing healthcare for all community members. Rural communities expect that nurses will always know what to do, and be capable and competent in any situation. Nurses are expected to be available on demand and to give their time to the community selflessly. Rural nurses are also generally well known in the community and have little chance of retaining their anonymity and privacy (Thornton, 1992). Rural nursing is difficult to characterise, because each rural practice setting brings its own challenges and rewards that are related to the specific features of the community in which care is provided.

Health and healthcare are social phenomena, and both are closely linked with social organisation (Russell & Schofield, 1986). The social organisation of rural populations in WA varies widely due to the geographical isolation of many towns. Nurses must work within the accepted cultural norms of rural people, to be able to provide appropriate and effective healthcare for the community in which they practice. Individuals living in rural communities may have different health beliefs and definitions of health, and different values related to personal health, than do people living in urban areas (Craig, 1994). Health beliefs in rural areas are often strongly allied to work related issues, particularly for people working in the farming and agricultural sector. For example, rural people will often delay seeking professional help for illness until tasks such as harvesting or seeding have been completed (Long & Weinert, 1992). Rural people also tend to have a strong community focus, and may seek assistance from informal carers, such as family or friends, before visiting a health practitioner (Congdon

& Magilvy, 2001). Meeting the specific needs of a rural community can therefore pose challenges for a rural nurse that are not seen in urban health care settings.

The diversity of rural populations is a particular consideration for rural health nurses (Malone-Rising, 1992). Many Western Australian towns have large immigrant populations, as well as high numbers of indigenous Australians (Hugo, 1996). Migrant groups often have health beliefs and health practices dictated by the culture from which they originate (Gifford, 1991). Indigenous Australians in Western Australia have complex health beliefs related to traditional health practices and their social and environmental disadvantages (Gracey & Veroni, 1995). Providing for the care needs of such diverse groups within small populations presents an added challenge for rural nurses.

Nurses in rural areas often have an expanded nursing role, where they may be expected to complete tasks that would be outside the scope of nurses working in urban settings (Keyzer, 1998). The increasing cost of maintaining the healthcare infrastructure in rural areas has led to greater demands being placed on nursing staff. There are insufficient numbers of available medical practitioners in rural Australia, requiring nurses in these areas to assume increased responsibilities in areas such as patient assessment and treatment (Evans, 1994). Nurses in rural areas are often expected to fulfil multiple roles, such as pharmacist, physiotherapist, general practitioner and dietician (Hegney, 1996). This expanded nursing role can offer rural nurses great rewards as well as stresses.

Palliative Care Service Provision in Western Australia

Information relating specifically to palliative care in WA is not readily available. In many instances discussion about palliative care is included in the literature relating to cancer and oncology, because a large proportion of people receiving palliative care services have a cancer diagnosis (Kristjanson, Tøye & Dawson, 2003). Therefore, the cancer literature relating to WA was used to ascertain the need for palliative care services in rural areas of WA.

In 2001 there were more than 1600 rural Western Australians who were known to have a cancer diagnosis (Threlfall & Thompson, 2003). There were also more than 640 deaths directly attributable to cancer in rural areas. Mortality rates from cancer were proportionally higher in the Perth metropolitan area, possibly because some people were forced to move to urban areas to access health care (Threlfall, 1997). The number of rural people dying annually with a terminal illness should be a significant

consideration when planning resource allocation. However, Threlfall states that there is insufficient evidence available at present upon which to base planning of rural cancer services. When the needs of rural people with other life threatening illnesses such as neurological illnesses, cardiac, respiratory or renal failure are also considered, it seems likely that there are significant numbers of rural people requiring palliative care services on an annual basis.

Despite the demand for rural health care, the majority of healthcare infrastructure in Western Australia is located in the capital city of Perth, with limited resources available in rural areas. Even larger regional centres in Western Australia, with populations of 10,000 people or more, have limited healthcare resources (AIHW, 1998). However, the needs of rural people are slowly being recognised, and an increasing number of rural health services offer palliative care to the communities they serve. In 2003 there were 31 specialist rural palliative care services in Western Australia (Palliative Care WA, 2003a). Some larger regional centres offered both community and inpatient specialist palliative care. Smaller towns had designated palliative care beds in the local hospital, and some also offered limited domiciliary nursing support as well. Financial support for these services has been minimal and irregular. Maintenance of rural palliative care services relies largely on the volunteer sector and the interests of dedicated health professionals in the rural community (Western Australian Hospice and Palliative Care Association, 1996). Palliative care services in rural areas have developed in an *ad hoc* way, and to date there is little empirical data available in regard to the efficacy of the services.

Many rural people wish to remain within their own community when unwell, to be close to their friends and families. This is particularly so when people are diagnosed as terminally ill (Sach, 1997; Williamson, 1996). Readily available domiciliary nursing services are a vital component of a competent and viable palliative care service. However, lack of funding prohibits 24-hour home care in many country towns. The lack of community nursing services leads to more inpatient services being used by people who are not able to cope at home without professional support (Sach, 1997). Unfortunately, inpatient palliative care services may also not be readily available when required. The lack of available palliative care services can lead to rural people having to relocate to urban areas to access required care (Threlfall & Thompson, 2003).

The HDWA (1998), in a discussion paper, stated its goal with regard to providing improved services for people with a cancer diagnosis as:

...all Western Australians with a cancer diagnosis must have access to high quality care delivered promptly and with humanity. In all cases care should be provided as close to the patient's home as is compatible with high quality...treatment in keeping with the expressed views of consumers and carers (p. 84).

Sach (1997) underscored the urgent need for trained palliative care staff in rural Australia to be able to meet the needs of rural people and suggested that recruitment and training be considered a priority for rural health care planners and funding providers.

Rural Palliative Care Nursing: An Emerging Specialty

Palliative care is a relatively new specialty in health care and has been practised in Western Australia for approximately 25 years (Smith & Yuen, 1994). As palliative care has evolved as a medical and nursing specialty in WA, there has been a growing interest on the part of rural generalist practitioners to include palliative care knowledge and techniques in their practice. Rural palliative care is now a rapidly developing component of the Western Australian health care system (Palliative Care WA, 2003b).

Palliative care is an acknowledged specialty area for nurses, requiring specific education and training and extensive knowledge and skills (Dahlin, 2000). As palliative care has been incorporated into the practice of health care agencies in WA, there has been a corresponding increase in the number of rural nurses who have taken on the role of palliative care specialist in their workplace. Specialist registered nurses are more likely to be found in larger regional hospitals because smaller centres do not have the staffing numbers or funding to provide specialist care (Hegney, 1996). However, even nurses who are labelled "specialists" are often expected to perform generalist tasks. For example, a palliative care nurse may have to be a cancer generalist, providing care and support through diagnosis, surgical treatment, chemotherapy, palliative care and bereavement (Curtiss, 1993). Furthermore, palliative care nurses in rural areas may have to perform not only in a clinical role, but also as a manager and an educator (McConigley, 1998). As well as having multiple palliative care roles, a RPCN may also have to fulfil duties in other nursing specialities such as midwifery or emergency nursing (McConigley, 1998). The RPCN is therefore unique in terms of palliative care nursing roles, in that the expanded RPCN role is often combined with other nursing roles.

Issues Facing Rural Palliative Care Nurses

Palliative care nurses in rural areas may face unique challenges in their professional life. Social and professional isolation is common for nurses working in

rural Australia (Hegney, 1996), and the lack of healthcare resources in rural areas pose additional dilemmas for rural palliative care nurses. The size and isolation of rural Western Australia make palliative care nursing a unique and challenging occupation in this setting.

Research has shown that the transition from rural generalist to palliative care specialist can be stressful (McConigley, 1998; Trollor, 1995). As more rural practitioners begin to provide palliative care, there has been a parallel need for generalist healthcare professionals to assume the role of a palliative care specialist. Difficulty accessing educational materials and up-to-date clinical information, professional isolation, and lack of opportunities to debrief are all issues cited as making rural palliative care practice difficult. These issues are well documented as a concern of all rural practitioners (Dunning et al., 1994; Dismohamed & Guscott, 1998; Hegney, 1997; Scott, 1991; Strasser, 1995). However, McConigley's research suggests that these issues may be intensified for RPCNs, who are expected to take on the role of the expert in palliative care, despite a lack of preparation and insufficient access to information. Meeting the expectations of both themselves and others to perform in an expert role may lead to increased levels of stress, with few opportunities to access support and understanding from their peers.

Several papers also suggested that RPCNs have difficulty accessing further education opportunities, making it difficult for them to keep abreast of developments in clinical practice (Hawkins, Curtiss & Lauria, 1997; McConigley, 1998; Trollor, 1995). The practice of palliative care has advanced in recent years, as research in this area has led to new or improved methods of delivering care. There is a need for RPCNs to access this information so that they can update their clinical knowledge, and therefore offer optimum care to their patients.

Palliative care practitioners are exposed daily to suffering, loss and grief, and experience the death of patients on a regular basis. Despite these experiences, researchers found that levels of stress in urban palliative care workers are low (Masterton-Allen, Mor, Laliberte & Monteiro, 1985; Turnipseed, 1987; Vachon, 1986). This low stress level was attributed to the interdisciplinary team approach to palliative care, with the mutual support system among palliative care colleagues appearing to be a major factor in alleviating the stress associated with end-of-life care. In contrast, RPCNs may work in isolation, or in a small team that offers few opportunities for debriefing and mutual support (McConigley, 1998). It is therefore possible that RPCNs

may report higher levels of occupational stress than their urban counterparts. Multiple research studies have demonstrated a link between workplace stressors and caregiver burnout (Bram & Katz, 1989; Mallett, Price, Jurs & Slenker, 1991; Nash, 1989). Healthcare professionals experiencing high levels of occupational stress and/or burnout may display negative attitudes towards patient care, and may appear indifferent and cold in encounters with patients (Duquette, Kerouac, Sandhu & Beaudet, 1994), thereby compromising the quality of care offered. Furthermore, there is a possible link between high levels of occupational stress and intention to resign from a position (Dailey, 1990).

Significance of the Study

Palliative care has moved rapidly into rural health care practice, yet little is known about issues relating to rural palliative care provision. This research seeks to gain an increased understanding of the issues facing rural palliative care practitioners, focusing on issues relating to care provision, education, resource needs and workforce issues such as job satisfaction and intention to leave palliative care. It was expected that this increased understanding would be of significance in several key areas, including workforce planning, standards of care provision and planning for education and training.

Workforce Planning

In view of the current worldwide shortage of trained nurses, workforce planning is of critical importance in all health care areas (International Council of Nurses, 2003). Rural areas have traditionally had more difficulty recruiting staff, making workforce issues of particular concern in this sector (Auditor General for Western Australia, 2002). It is thus imperative that managers and administrators in rural health care have a clear understanding of issues facing the rural workforce, so that they can not only retain staff currently working in the area, but also so that they can effectively recruit new nurses into rural healthcare. Retention of staff is a crucial issue in rural palliative care nursing, because RPCNs are highly skilled practitioners who have undergone extensive specialised training. Replacing an experienced RPCN is not only costly in a financial sense, taking into account the cost of recruiting and training a new RPCN, but also in terms of the loss of specialist skills and knowledge in a rural health care setting. The loss of an RPCN may compromise the quality of patient care provided in rural communities.

This research explored the concerns of RPCNs related to their professional role. It was anticipated that by focusing on the needs and concerns of RPCNs, job satisfaction

and ultimately the intention of RPCNs to remain in palliative care practice might be improved. Having an increased understanding of the issues facing RPCNs was expected to be of use in workforce planning, in that this information would enable difficulties specific to rural palliative care practice to be addressed, thereby making RPCNs more likely to remain in a palliative care role. Furthermore, information about the issues facing RPCNs was expected to be useful when planning recruitment of new nurses, in that awareness of pertinent issues is likely to assist in decision making related to recruitment and retention of a rural palliative care workforce.

Gaining an increased understanding of professional isolation and its impact on rural nurses is also expected to be of relevance when considering rural workforce planning. Awareness of this issue will allow workforce planners to build into contracts and work conditions specific interventions that will lessen the impact of professional isolation, therefore minimising the effects that professional isolation has on the rural workforce. It is possible that this may make rural health care practice more attractive as a long-term career option.

Planning for Education and Training

When planning for education and training aimed at rural practitioners, it is essential that the practitioners themselves be consulted to ensure that any education provided is timely, relevant and appropriate to the target group. It is important that educators understand that there is a marked difference between urban and rural health care, and that education needs may therefore differ. Information about the needs of RPCNs is required when planning rural palliative care education, because it allows education sessions to be tailored to meet the specific needs of RPCNs.

Providing a high standard of palliative care requires staff with expert skills and knowledge in clinical palliative care. It is therefore essential that appropriate training be available to assist RPCNs in achieving the required level of skill and knowledge, thereby ensuring that rural communities' needs for a palliative care specialist can be met.

The Research Problem

Purpose of the Study

The aims of this research project were to identify the support and education needs of RPCNs and to use this information to develop an intervention that would assist in alleviating the sense of professional isolation experienced by this group. Data

gathered when evaluating the intervention provided information regarding the efficacy of the intervention that was implemented, and also provided further information about the construct of professional isolation as it relates to RPCNs.

Research Questions

Specific research questions guided both phases of the project. These are detailed below.

Phase I: A Learning Needs Assessment

The first phase of this project involved surveying RPCNs in Western Australia. The survey helped to build a profile of the demographic details of RPCNs, sought information about their learning and support needs, and explored options for providing services to RPCNs to assist them in their professional role. The research questions explored in this phase were:

- What education and support needs did RPCNs identify as being of most importance?
- What issues in professional practice were identified by RPCNs as requiring attention?
- How/where did RPCNs access education and support related to palliative care?
- What were the preferred methods of service delivery to meet the identified needs of RPCNs?

Phase II: Implementation and Evaluation of an Education Intervention

Phase II of the project involved the implementation of an intervention that aimed to assist RPCNs in their professional practice. A two-part intervention was devised that was designed to assist RPCNs to act in the role of palliative care educator. Providing education for other staff members has been identified as an aspect of the RPCN role for which practitioners felt under-prepared, and was therefore identified as a stressful part of their job (McConigley, 1998). A series of one-day workshops in rural locations were held that discussed strategies for providing palliative care education, and all participants were provided with a series of education materials called *Over Handover* to assist them in their palliative care educator role. Phase II also focused on evaluating the intervention provided. The evaluation examined the usefulness of the education

materials provided and the workshops that were run. The efficacy of the workshops in decreasing professional isolation and levels of burnout were also explored.

The questions that guided this phase were:

- How did the workshop participants rate their satisfaction with this intervention?
- How did recipients of the *Over Handover* education packages rate their satisfaction with it as a tool to enhance their role as a palliative care educator?
- How regularly did recipients of the *Over Handover* education packages use it to provide education in their workplace?
- How did the intervention affect recipients' clinical confidence in providing palliative care?
- To what extent did the intervention decrease the level of professional isolation reported by RPCNs?
- To what extent did the intervention decrease the level of burnout reported by RPCNs?
- To what extent did the intervention increase the level of job satisfaction reported by RPCNs?
- Did the intervention alter the RPCNs' intention to remain in palliative care?
- To what extent was the reported level of burnout related to levels of professional isolation?
- To what extent was the reported level of job satisfaction for RPCNs related to levels of professional isolation and burnout?
- Were there any indicators that would predict which RPCNs were more at risk of professional isolation and burnout?
- Were there any indicators that would predict which RPCNs were more at risk of leaving palliative care?

Conclusion

This chapter has outlined the reason for undertaking research concerning the support and education needs of palliative care nurses in rural Western Australia. Research has shown that this group of nurses may be at increased risk of professional

isolation and burnout. It is possible that providing for identified support and education needs may go some way to alleviating this situation. This research project evaluated the efficacy of two interventions aimed at decreasing stress and isolation in this group. It was expected that reducing feelings of isolation and stress would increase nurses' feelings of job satisfaction, and decrease their intention to leave palliative care nursing practice.

Chapter Two

Literature Review

Introduction

This chapter examines the literature relevant to the profession of rural palliative care nursing. An extensive literature review was undertaken using the electronic databases OVID, Infotrak and PROQUEST. A manual literature search of palliative care and rural health journals was also performed. The reference lists of key articles were tracked to identify relevant literature not accessible via electronic media. This search revealed a paucity of empirical data relating to rural palliative care nursing. Therefore, the scope of this literature review was expanded to include related areas with potential relevance to rural palliative care nursing. The literature discussed in this chapter examines:

- Rural palliative care provision
- Issues relating to specialist rural nurses
- The concept of professional isolation
- Stress and burnout in palliative care nursing
- Ways of decreasing isolation in rural health care practice.

The conceptual model that guided the project is also discussed.

Rural Palliative Care Nursing

Little research has been undertaken to examine the issues faced by nurses involved in rural palliative care provision. Palliative care is a relatively new specialty area for nurses, and its integration into rural health care is a recent occurrence. To date, issues about provision of cancer-related palliative care in rural areas have, for the most part, been included in literature examining provision of oncology services to rural communities. Limited attention has been paid to end-of-life care in a rural health context. Therefore, this literature review has examined the research relating to general rural nursing practice, specialist nurse positions in rural areas, rural oncology literature, and the available literature regarding rural palliative care.

Rural Palliative Care

McConigley (1998) conducted a small qualitative study of RPCNs (n= 6) in Western Australia, using a grounded theory methodology. The findings of McConigley's study underpin this current project and will be presented in detail here. The study found that major issues confronting RPCNs were: the nature of the RPCN role that required the nurses to live palliative care, role overload and poor role definition, isolation and limited support mechanisms. The central theme of "Living Palliative Care" described the all-encompassing effect of the RPCN role. Nurses were required to work long hours in the clinical setting (often in palliative care and other nursing areas as well), to attend fundraising and social functions related to the palliative care service and to be on call for patient emergencies. Having private, non-work time was often impossible because of the high public profile of the RPCN in the community, with a resulting lack of anonymity, making the RPCNs feel that they were always on duty. Family and leisure activities were often adversely affected by the demands of the RPCN role.

Sub-themes related to living palliative care were "Wearing Many Hats", "Being the Expert" and "Surviving in Palliative Care". Wearing Many Hats described a condition of role overload and overwork that was characteristic of the RPCN role. RPCNs were essentially palliative care generalists, in that they were required to oversee all facets of the palliative care service. RPCNs often had a strong clinical focus, but were also expected to fulfil management functions, coordinate volunteer workers, provide education and training, promote the local palliative care service and assist with fundraising. As well as this extended palliative care role, many RPCNs also had to work in other areas of the health service. RPCNs were expected to work in midwifery, theatre, emergency and general wards, as well as completing all palliative care related duties. Having so many roles to fulfil was stressful and time consuming, and RPCNs felt conflicted when these other roles detracted from the provision of clinical palliative care.

The theme of Being the Expert described the expectations of other nurses and health professionals, as well as the community, that the RPCN be able to provide all facets of palliative care, have expert knowledge in all areas and act as an educator and consultant. RPCNs were often poorly prepared for this role, and the role itself was not always clearly defined. Several nurses described having to write their own job description document because there was not one available and no one had a clear idea of

what the palliative care nurse role entailed. Many of the RPCNs in this study were the only regular palliative care nurse in their town; few had another nurse available to offer assistance. The demands of working alone and the expectation of being the palliative care expert placed a burden on the RPCNs which caused considerable stress.

The final sub-theme *Surviving in Palliative Care* described coping strategies used by RPCNs to make the stresses inherent in their positions bearable. Family support was considered helpful, as were connections with Perth-based palliative care services. Professional support from local colleagues was often not forthcoming, perhaps because other nurses had limited insight into the levels of occupational stress suffered by the RPCNs. Overall the coping strategies and support mechanisms appeared inadequate. Anecdotal evidence indicated that all of the participants in this study had resigned from their roles in rural palliative care, and had stopped working in the palliative care field, within three years of the completion of this study.

Stress in Rural Palliative Care

The findings of McConigley's (1998) study suggested that there was a degree of stress inherent in rural palliative care practice that had not been noted in studies conducted of urban palliative care nursing populations (Masterton-Allen et al., 1985; Turnipseed, 1987; Vachon, 1986). It was noted that support mechanisms such as regular debriefing and team meetings, which are routinely described as part of an urban palliative care service (McNamara, Waddell & Colvin, 1995; McWilliam, Burdock & Wamsley, 1993; Vachon, 1986), were not part of the rural palliative care work environment. The small number of participants in McConigley's study made it difficult to generalise the results to other settings.

A Canadian study of rural health professionals found similar results to McConigley's (1998) work (MacLean & Kelley, 2001). This large qualitative study (n=64) in rural and regional Canada examined the challenges and rewards of rural palliative care practice. The authors noted that while the rewards of palliative care work were great for rural practitioners, the factors of isolation, limited access to education, support and resources were causes of stress for participants. MacLean and Kelley also stressed that participants asserted that rural palliative care provision was different from urban-based palliative care practice. However, it is difficult to substantiate this claim because no urban comparison group was used in this study.

Wilkes and Beale (2001) conducted a qualitative study of 27 nurses in New South Wales (Australia) and also highlighted issues that caused stress for rural and

urban palliative care nurses. Issues reported included the challenge of working in different settings (community and hospital palliative care settings) and the problem of isolation. Rural participants discussed difficulties in coping alone with patient deaths and with stresses associated with providing care for friends or acquaintances in small communities. This study did not quantify stress levels; comparison of stress levels between rural and urban palliative care nurses in this study was therefore not possible. However, the study did find that rural nurses reported having more effective support systems available than the urban nurses. This suggests that the RPCNs in this study were employed in a workplace with a different structure to RPCNs in McConigley's (1998) study, where most nurses worked alone with little team support. Therefore, care must be taken when defining rural palliative care, because different palliative care models may occur within rural areas. These two contrasting studies underscore the importance of not characterising all RPCNs as being isolated sole practitioners. The diversity of palliative care models in rural areas presents a significant challenge when trying to define and describe the work of RPCNs.

A study of 108 palliative care nurses working in rural and urban areas in New South Wales found that 63% of respondents felt that accessing formal education was difficult, 57% cited stress as a major problem for them, and 48% believed that they had been inadequately prepared for their palliative care role (Redman, White, Ryan & Hennrikus, 1995). The authors did not differentiate between rural and urban-based nurses, making it difficult to ascertain if these issues were more problematic for one of the groups.

Two papers were found which studied issues relating to palliative care in rural Wales in the United Kingdom. Noble, Hughes, Ingleton and Clark (2001) surveyed 94 medical practitioners and nurses involved in providing palliative care in rural Wales. Respondents reported difficulties accessing specialist palliative care assistance because of the need to travel long distances (up to 65km), and some also suggested that the palliative care services that were offered in rural communities was limited and could be improved. Another Welsh study of 94 General Medical Practitioners working in rural communities examined issues related to palliative care provision by the respondents (Lloyd-Williams, Wilkinson & Lloyd-Williams, 2000). GPs in this study expressed the need for continuing education to assist them in providing palliative care, with the stated preference being for experiential learning experiences provided close to home. Both of these descriptive studies help to build a profile of rural palliative care practice; however,

it is unwise to generalise the findings of studies conducted in rural areas of the United Kingdom to rural settings in Australia. The rural health care setting in Australia is characterised by geographical isolation and is sparsely populated. Noble et al. (2001) describe the rural area of Wales being studied as having a population of 125,000, with towns being approximately 32 kilometres apart. Therefore, the results of these studies may be of little relevance to an Australian health care setting.

Trollor's (1995) examination of issues relating to the provision of palliative care by General Medical Practitioners (GPs) (n= 133) in rural New South Wales found that accessing appropriate palliative care education was difficult for this group of rural health care providers, as were opportunities to debrief, with both issues leading to feelings of professional isolation. This paper focused on difficulties experienced by medical practitioners. It is likely, however, that the difficulties inherent in providing palliative care in a rural setting are similar for all disciplines, and are possibly related to issues specific to rural locations. These may then be compounded by the stresses of working in an emotive and challenging field such as palliative care.

The RPCN role was poorly defined in the palliative care literature and there is little information on the issues facing nurses working in this area. The literature described a nursing role that appeared to be stressful, but no quantitative data were available to determine the level of stress experienced by rural nurses, nor the causes of the stress for this group. Also, there were no data available that quantified differences between urban and rural palliative care practice, so it is possible that the stressors experienced by RPCNs were of a similar magnitude to those experienced by nurses in all practice settings, although the stressors themselves may be different in urban and rural settings.

Rural Palliative Care: The Patient and Family Perspective

The literature regarding rural palliative care appeared to have a similar underlying theme to that of the literature relating to rural palliative care nursing; that palliative care in rural areas is different from palliative care provided in an urban health care setting. The differences were not always clearly defined, but this underlying tenet remained. The idea that rural palliative care is somehow different is supported by literature relating to the needs and experiences of rural palliative care patients, families and caregivers.

Wilkes and White's (1998) study of palliative care in rural New South Wales underscored rural communities' needs to have access to appropriate and timely services,

regardless of their location. Wilkes and White conducted a qualitative study that involved interviewing 17 families of rural people with a terminal illness; 10 RPCNs were also interviewed as part of the study. This research found that palliative care services in NSW were unevenly distributed throughout the state and were not always reflective of the needs of the community they serviced. Wilkes and White also highlighted the need rural people had for information, guidance and support throughout the illness trajectory.

The increased need for information is also discussed in a study from the United States (Silveira & Winstead-Fry, 1997), which found that rural palliative care patients and their caregivers (n= 60) rated their informational needs more highly than a similar sample (n= 59) in an urban setting (Longman, Atwood, Sherman, Benedict & Shang, 1992). The increased emphasis on information and support needs in rural communities may be reflective of coping strategies acquired by rural dwellers, because of limited availability of services. Buehler and Lee (1992) called this “making do” and found that rural families (n= 10) coping with a life-threatening cancer diagnosis tended to be self sufficient and adapted to their changed situation as best they could. Morgan (1997) described patient teaching as vital in rural palliative care practice. The need for control and self-reliance in rural populations may impact on the RPCN role, in that the RPCN role may need to have a strong educative and supportive emphasis to ensure the needs of rural people are met.

The focus of patient/carer teaching in rural palliative care has been explored in several studies. Trollor (1997), in a small survey of family members caring for people with a terminal illness in rural NSW (n= 26), found that approximately 50% of carers would have liked more information about performing nursing type tasks, such as bathing and making someone comfortable. Similar results were found by three studies conducted in Montana (Burman, Steffes & Weinert, 1993; Conley & Burman, 1997; Sullivan, Weinert & Fulton, 1993). It is possible that this emphasis on information about physical care tasks is linked to the limited availability of health care services in rural areas; however, the reasons for this inference were not explored.

It is possible that palliative care patients in rural areas are sicker than those in urban care settings, because rural people may be diagnosed later in their disease trajectory and thus have greater care needs and fewer treatment options available to them. Liff, Chow and Greenberg (1991) examined the cancer incidence statistics collected in Georgia (United States of America [USA]), and found that residents of rural

Georgia were more likely to be diagnosed with cancer at a later stage of their disease than people living in urban areas of the state. The rural inhabitants were 20 to 30% more likely to be diagnosed with metastatic disease and significantly more likely to have an unstaged malignancy diagnosed. These results suggest either that diagnosis is less effective in rural areas, or that differing health beliefs of rural populations preclude people from seeking medical help early in the disease trajectory. Long and Weinert (1992) conducted extensive qualitative and quantitative research studies in rural Montana and found that rural people may delay seeking medical treatment until after attending to seasonal jobs such as the harvest, thus increasing the possibility of more advanced disease being diagnosed and care needs being greater. Both of these studies were conducted in the USA and are more than 10 years old, and may therefore not be relevant to a contemporary rural Australian population. However, no data could be found that related specifically to an Australian sample.

A report into the palliative care needs of Indigenous Australians, compiled in the North West of Western Australia, found that Indigenous Australians preferred to die in their own "country", where they could maintain their strong spiritual links with the land (Williamson, 1996). It is possible that non-Indigenous rural people also have strong connections with their land that can cause them to delay or refuse treatment that involves spending long periods of time in a city hospital. Kelly and Barber (1989), in a study of 748 people, found that more than twice as many people in a rural part of Scotland chose to die at home, compared to people in urban Glasgow.

In summary, the literature suggests that rural patients may be different from patients in an urban health care setting. This is possibly because rural people are more self-reliant and have less input from health professionals, and may choose to have more care provided in the community setting than do urban people. Rural people may also be diagnosed later in their illness and therefore require more immediate input from health professionals. Patients diagnosed later in the illness trajectory are also more likely to require a greater intensity of service provision, because of the likelihood of increasing severity of symptoms with more advanced disease. Unfortunately there is limited data relating to Australian populations, and therefore it is difficult to be sure about the needs of people with a life threatening illness in Australia. It is possible that RPCNs in rural Australia have a different professional role to palliative care nurses in urban settings; however, there is not enough evidence to substantiate this claim at the present time.

Rural Nursing: The Current Understandings

A study conducted in rural health settings in Australia found that rural nurses ($n=4$) were working in conditions that had remained unchanged since difficulties were first reported for this group of nurses in the 1970s (Hanna, 2001). Rural nurses experienced inadequate resources, equipment and facilities, thus making it difficult to provide adequate care. Participants in this study also reported feeling unsupported by the organisation for which they worked, and felt that there was little understanding or recognition of their extended and often stressful role. Furthermore, participants reported having little or no preparation prior to commencing the role, and having limited or no access to educational opportunities that would assist in enhancing their abilities to perform in the rural nurse role. This research used a case study methodology that involved interviewing four rural nurses in three locations. The small number of participants in this study limits the generalisability of the findings to other rural settings.

Issues of under-resourcing, inadequate support and high levels of stress have been reported in the rural nursing literature in the past (Cramer, 1995; Willis, 1991). Similar issues are found in the rural palliative care literature, and may be exacerbated by the specialist nature of the RPCN role. However, none of these studies have quantified levels of stress, and no comparisons have been made with urban samples. Therefore, there is not enough evidence to confirm that rural nursing practice is more stressful than urban practice. It is possible that each practice setting has different stressors, and that the stressors discussed by rural nurses may also be problematic for urban nurses.

Huntley (1994-1995) surveyed 158 nurses in rural New South Wales to determine why nurses had sought employment in a rural area, what factors encouraged them to stay in their job and what would make them consider leaving rural employment. Reasons that respondents gave for choosing to work in a rural area included the country lifestyle, having previously lived in the country and having family members in the country. Respondents also reported that the extended rural nurse role was interesting and challenging and that opportunities for learning new skills were plentiful. Less positive aspects of working in the rural setting were the negative attitudes of medical practitioners and hospital administrators, a perceived lack of understanding of professional needs, staff shortages and difficulty accessing further educational opportunities.

A study of rural nurses in Georgia (USA) ($n=167$) found that having autonomy in the workplace and being able to have input into decision making that would directly

affect the respondent were the most important issues in determining levels of job satisfaction (Hanson, Jenkins & Ryan, 1990). Lack of autonomy was moderately correlated with nurses' intention to seek other employment ($r = -0.46$, $p = 0.001$). A survey of job satisfaction amongst rural nurses ($n = 69$) conducted in South Dakota (USA) found that autonomy appeared to have an impact on satisfaction in the workplace, with nurses preferring to work evening and night shifts that offered a chance to work alone and therefore involve greater decision making capacity (Bushy & Banik, 1991). The authors of this paper did not provide the statistics to illustrate this claim, making this finding difficult to substantiate. Furthermore, no urban comparison was used in these studies; therefore, it is difficult to determine if these results are reflective of a rural specific need for autonomy or are indicative of a nursing wide need to have some decision making capacity in the workplace. However, another large qualitative study of 230 nurses working in rural Australia found that professional autonomy was a factor in nurses choosing to work in rural areas in Australia (Hegney, Pearson & McCarthy, 1997). Although nurses in these studies indicated that autonomy was important, adequate support from health service management and local medical practitioners was also considered vital for rural nurses.

Several studies have examined relationships between demographic characteristics and nurses' intentions to leave rural practice. Muus, Stratton, Dunkin and Juhl (1993) conducted a survey of rural nurses ($n = 2488$) to determine which nurses were more likely to remain in rural nursing practice. The study found that unmarried nurses aged 30 years or less, who were originally from larger urban centres, were less likely to remain in rural areas. Smaller hospitals with fewer than 25 beds and those offering lower salaries were less likely to retain staff. Nurses with the highest intention to remain working in rural areas were aged between 41 and 50 years, married, and had grown up in a rural community. These results were confirmed in a later logit analysis of the same survey data (Pan, Dunkin, Muus, Harris & Geller, 1995). This research was conducted in the USA and therefore may not be generalisable to an Australian setting.

There was a suggestion in the literature that access to further education and training may be limited for rural practitioners (Dusmohamed & Guscott, 1998; Harvey et al., 1995; Hegney, 1996). Harvey et al. surveyed rural health professionals who were either working in an Australian rural community, or who had some role in rural health, such as educators ($n = 317$). Respondents were questioned about areas that they felt were of concern in rural health. Providing educational opportunities for rural staff was

one concern. This was adversely affected by understaffing, because it was difficult to provide relief staff to replace staff attending education sessions. These results were presented as preliminary findings and as such must be viewed with caution. Difficulties accessing locum cover to attend educational opportunities was also cited as a problem in two other studies (Kristjanson, Dudgeon, Nelson, Henteleff & Balneaves, 1997; Trollor, 1995).

In summary, the literature examining issues related to rural palliative care practice is scarce, and therefore literature from related areas such as rural nursing practice was examined to highlight areas that may be of concern for RPCNs. The available literature suggests that rural palliative care may be stressful for nurses; however, there is insufficient data to determine whether the stresses of rural practice differ significantly from those in an urban palliative care setting. However, it does appear that RPCNs have difficulty accessing educational opportunities and resources, and that peer support may be limited for RPCNs. It is also possible that patient profiles may be different in rural areas, with rural palliative care patients possibly having more advanced disease on diagnosis and having less access to palliative treatment options such as surgery and radiotherapy. This literature review underscored the need for more empirical data to highlight areas of importance in rural palliative care practice in Australia.

Burnout in Palliative Care Settings

Workplace stressors in palliative care have been studied extensively since the Hospice movement began in the late 1960s. Early researchers were concerned with the potential for palliative care workers to suffer from high stress levels, because of the emotional nature of the work and the constant exposure to grief and sadness that was encountered. More recent research has found that stress levels in palliative care are often lower than expected; therefore, research has focused on determining the causes of stress in palliative care workers and how they can be alleviated (Vachon, 1999). This literature review has focussed on selected research that examines sources of workplace stress in palliative care, and the relationships between these stressors and the phenomenon of burnout.

Workplace Stressors in the Palliative Care Environment

A number of qualitative research studies have been undertaken to describe the nature of stress in palliative care. As part of a larger project Vachon (1986) interviewed 100 experienced palliative care practitioners about stressors in their work environment.

Communication difficulties, role ambiguity and inadequate resources were listed as the most common causes of stress. Vachon suggests that the stress discussed by participants was similar to the stress that would be expected in any health related workplace and was not unique to the palliative care environment. The author also suggested that the relatively low levels of stress described by this sample might have reflected the older and more experienced sample used and the team approach that is the cornerstone of palliative care philosophy. This research suggested that stress is higher in areas that have a high turnover of patients such as Intensive Care Units and Emergency Departments, where a patient's length of stay is short and where family involvement is restricted. In contrast, palliative care nurses often care for patients for an extended period of time, and are therefore able to form bonds with patients and families, which bring a sense of fulfilment. A study by Mallett et al. (1991) also reported that patient contact was stressful for nurses in the critical care environment, while the most common stressors for palliative care nurses were related to staffing issues, in particular to having inadequate staffing or having inadequate numbers of qualified staff available.

An ethnographic study of both inpatient and community based palliative care services found that work colleagues were a commonly used source of support to ameliorate the effects of a stressful work environment (McNamara et al., 1995). Some participants felt that palliative care team support was particularly important, because family and friends were unable to offer the support required. Other stressors reported by palliative care nurses in this study included coping with society's discomfort with death, time constraints that required physical care tasks to take precedence over psycho-spiritual care needs and the necessity of facing one's own mortality. McNamara et al. describe a nurse's perception of a good death as providing "effective symptom control so that the patient may complete their living and die pain free" (p.224). The authors suggest that nurses need to be actively involved in the dying process, and have been able to facilitate an environment conducive to a peaceful and dignified end of life. The idea of a "good death" and the stress that nurses feel when they believed they had not achieved this ideal were described as being central to the experiences of nurses in the palliative care environment. This observation was confirmed by McNamara (1996), who suggested that the concept of a good death was shared by palliative care nurses, and that coping strategies were related to the nurses' ability to conceptualise patient deaths as good, or to rationalise less desirable death scenes.

A survey of 117 palliative care nurses asked respondents to rate 53 items according to how much stress the respondents felt each item caused them (Krikorian & Moser, 1985). Threats to the quality of patient care were rated by the respondents as causing the most stress, and the provision of incompetent care and insensitive attitudes of other health professionals were also rated as highly stressful. This paper did not explore the threats that palliative care nurses perceived in relation to their ability to provide quality care, and did not articulate what was considered incompetent or insensitive care. However, it is clear from this study that the palliative care nurses studied had a strong sense of how care should be provided to patients to facilitate a good death.

Munley's (1985) extensive qualitative study of stressors relating to palliative care provision found that inability to control symptoms, particularly pain, led to stress for palliative care nurses and other staff, who considered this to be an undignified death. A study of domiciliary nurses in Canada (n= 10) also found that difficulties with patient deaths and uncontrolled pain and symptoms were a cause of stress (Gotay, Crockett & West, 1985), as did a study of 167 nurses working in either palliative care or acute care (Copp & Dunn, 1993). It appears that palliative care nurses have an idealistic picture of how palliative care should be provided that is not always possible to achieve. The ideal appears to be the achievement of a good death, which is free from pain and suffering. The inability to provide this ideal is a significant source of stress for palliative care nurses.

There is limited data available regarding stressors that are unique to the rural palliative care setting. Wilkes and Beale (2001) found that both urban and rural nurses (n= 27) experienced conflict with medical practitioners regarding patient management issues, but also reflected that some nurses had excellent and supportive relationships with local medical practitioners. It seems likely that nurses working in other rural areas may experience similar anguish regarding the clash between established medically oriented health services and services beginning to develop using palliative care philosophies. However, the limited information available necessitates caution when generalising this finding to all rural communities. Other rural specific findings in Wilkes and Beale's paper included feelings of isolation and aloneness on the part of rural palliative care nurses and difficulty caring for patients known to nursing staff. These findings are similar to those noted as being of concern to non-specialist rural

nurses, but may be exacerbated by the specialist nature of rural palliative care nursing, in that the act of specialisation may isolate this group from their generalist colleagues.

In summary, the literature relating to stress in the palliative care environment has highlighted the issues of the stress associated with failing to achieve a good death as prescribed by palliative care philosophy, discrepancies between patient care methods in the biomedical model and the holistic palliative care philosophy, difficulties working with management and administration, and professional and geographical isolation. However, these results are not necessarily generalisable to a rural Australian population. Only three of these studies (McNamara, 1996; McNamara et al., 1995; Wilkes & Beale, 2001) were Australian; only Wilkes and Beale conducted their study in rural Australia. Other studies were conducted in North America and the United Kingdom, where differing health care service structures may impose other stressors on practitioners in these areas.

The Experience of Burnout in Palliative Care

Burnout has been described as “a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do ‘people work’ of some kind” (Maslach & Jackson, 1986, p. 1). Burnout has been studied frequently in health professionals, particularly nurses (Maslach, 2001). Burnout is characterised by increasing levels of work related stress culminating in the signs described by Maslach and Jackson: nurses become detached from their patients, feel unable to give emotionally and develop negative and cynical attitudes. The possibility that palliative care workers were at high risk of workplace stress also led researchers to examine levels of burnout in this population, with the hope that early identification of problems could help to avoid high levels of burnout in the palliative care worker population.

The Maslach Burnout Inventory (MBI) was developed in the 1970s to attempt to quantify burnout (Maslach & Jackson, 1986). The MBI is a 22-item scale that measures three constructs that are believed to contribute to the syndrome of burnout: emotional exhaustion (EE), depersonalisation (DP) and personal accomplishment (PA). Each of these constructs is measured with a separate subscale, resulting in three separate scores for each respondent. The authors have extensively tested the MBI and the reports of these tests are a valuable source of comparison for researchers assessing burnout in previously untested populations such as RPCNs. However, a number of research papers report using the MBI in an altered format, making comparison difficult.

The MBI has been used by several researchers to explore burnout experienced in a hospice environment. Masterton-Allen et al. (1985) studied burnout as part of the larger National Hospice Study (USA). Staff from 31 palliative care settings across the United States were surveyed ($n=1067$, response rate 85%). This paper reported low levels of burnout in the palliative care sample, but did not report mean scores for this sample for each of the subscales of the MBI. The scale used to measure burnout in this study was changed from a zero to six Likert-type scale, as intended by Maslach and Jackson (1986), to one using a zero to four scale, making the results difficult to compare. Another paper using data obtained from the National Hospice Study also reported low levels of burnout, but again did not report mean scores for the total sample (Mor & Laliberte, 1984). In this paper the scale used is not noted, however, it is probable that the zero to four measure was used, as in the previous paper. Another research project measured burnout in a population of hospice nurses, compared to critical care nurses, and reported low levels of burnout in hospice nurses (Mallett et al., 1991). The authors modified the MBI to include seven items that measured interactions with families, therefore this study is also difficult to use for comparing burnout scores with samples in other studies. Turnipseed (1987) used the MBI to measure burnout in a small sample of palliative care nurses ($n=65$) in seven states of the United States of America. Findings revealed low levels of emotional exhaustion for 76% of respondents, low levels of depersonalisation for 73% of respondents and high levels of personal accomplishment for 69% of respondents. The researcher used an early version of the MBI that measured the frequency and intensity of feeling for each item of the MBI (Maslach & Jackson, 1981). Later versions of the MBI used the intensity scale only. Turnipseed also scored each item using a Likert-type scale ranging from one to seven. The 1986 version of the MBI changed this to a scale that measured from zero to six, making comparison of Turnipseed's findings with other studies that used the later version of the MBI impossible.

The MBI was the most frequently observed method of measuring burnout in the nursing literature. However, other instruments specific to nursing have been developed to test this construct. For example, the Research Inventory for Burnout was developed to test burnout in a nursing population, and has questions that relate to providing direct patient care (Tout & Sharma, 1990). The instrument has 40 items that form six burnout factor scores: client frustration, work setting frustration, tiredness, loneliness, work pressure and colleague interaction. Although this instrument is presented by the authors as being more appropriate than the MBI for testing burnout levels in a palliative care

population, no testing of the instrument in a palliative care population was reported. Therefore, although a nursing specific instrument is desirable in terms of item specificity, the difficulty comparing scores from other studies makes the use of such an instrument less desirable.

Predictors of Burnout

Several of the studies of burnout mentioned above also examined relationships between burnout and other variables. Most papers used the emotional exhaustion subscale of the MBI as the dependent variable, arguing that this scale most closely examines the critical constructs of burnout; feeling exhausted, emotionally drained and unable to contribute to patient care on an emotional level. Variables tested included demographic details (age, gender, qualifications, income) and workplace support (frequency of staff meetings or debriefing sessions). A number of demographic variables were related to burnout scores. Age was found to have a positive relationship to burnout scores by Masterton-Allen et al. (1985) ($\beta = -0.24$, $p < 0.001$) and by Mor and Laliberte (1984) (F not reported, $p < 0.001$). In particular, nurses under the age of thirty years appeared to be at greater risk of burnout. These two studies also found relationships between burnout and higher education qualifications, length of experience, nurses working full-time and nurses' income level.

Payne (2001) used multiple regression analysis to determine predictors of burnout. Stresses related to death and dying, conflict with other nurses, work responsibilities and higher nursing position accounted for 47% of the variance in emotional exhaustion scores. Mallett et al. (1991) also report a low, but nevertheless significant correlation between death anxiety and burnout ($r = 0.17$, $p < 0.05$). Therefore, it is possible that constant, regular exposure to death and dying may have a negative impact on those working in the palliative care field.

The relationship between burnout and workplace support was tested by Mallett et al. (1991) and Bram and Katz (1989). Mallett et al. found low but significant correlations between burnout scores and number of support persons available ($r = -0.12$, $p < 0.05$), and for satisfaction with support available ($r = -0.16$, $p < 0.05$). A correlation was also reported between frequent attendance at staff meetings and lower burnout scores. Bram and Katz found a correlation between perceived support in the workplace and burnout scores ($r = 0.44$, $p = 0.005$). Seeking support was ranked second in the preferred coping strategies tested by Payne (2001) and using a problem solving approach was ranked as the most preferred coping strategy. It seems likely that support

in the workplace is an important method of alleviating signs of burnout for nurses, and that regular staff meetings and a team-based approach are important factors in assessing for burnout. McConigley (1998) found that RPCNs were often sole practitioners with no team to support them, and generalist colleagues were not always supportive of their specialist role. It is possible that burnout scores may be higher for nurses who do not have adequate support to ameliorate stress and burnout.

In summary, stress in palliative care appears to be related in part to the inability of staff to effect a good death for patients. In particular, failing to provide adequate pain and symptom management is cited as a source of stress for palliative care nurses. Occupational stress can be a precursor to burnout, a syndrome characterised by feelings of emotional exhaustion and decreased interest in patients and their needs. Burnout appears to be in part decreased in palliative care settings by the commitment to a team approach to care provision. However, no literature could be found that examines the effects of stress for palliative care nurses who do not have access to supportive peers. There is a need to further explore issues of occupational stress and burnout in palliative care settings to determine what factors may decrease feelings of burnout.

Professional Isolation

Isolation is a theme that is commonly found in the rural literature. Many rural areas, especially in Australia, are geographically isolated, and as a result communities are isolated from resources and infrastructure that are often based in urban centres with larger population bases. The issue of isolation for health care professionals working in rural communities is likely to have an effect on their clinical practice, but as yet has not been fully articulated in the professional literature.

Searching for Definitions

Professional isolation has been mentioned in the nursing literature on a number of occasions, most often as a finding in a research project, rather than as a construct being investigated. Professional isolation has been described as a problem for nurses in the rural setting (Cramer, 1995; Hegney et al., 1997; McConigley, 1998; McLeod, Browne & Leipert, 1998; Thornton, 1992), and specialist nurses in areas such as epilepsy nursing (Mills, Campbell & Bachmann, 2002). In each of these papers the authors have drawn the conclusion from their findings that the participants in question are professionally isolated, but none of the authors explained how they reached that conclusion or what they meant when labelling someone as being professionally isolated.

Professional isolation is described as an issue for teachers (Flinders, 1988; Shoho, Katims & Meza, 1998), physiotherapists and occupational therapists (Lowe & Bithell, 2000; Solomon, Salvatori & Berry, 2001), rural medical practitioners (Trollor, 1995), counsellors in rural practice (Schank, 1998), and case managers (Krout, 1997). None of these papers gave a clear description of professional isolation as a construct. However, they all discussed the presence of several issues that led them to conclude that the groups mentioned suffered professional isolation. In most instances the research participants were in some way geographically isolated, either because of a rural location or because of the location of work premises that was in some way removed, for example a prison medical centre rather than a large tertiary hospital (Peternelj-Taylor & Johnson, 1995). Another common theme is separateness from professional colleagues, often because of solo-practitioner status. A solo-practitioner is not always a person who works alone, but may refer to a person working in an organisation, who is the only person in that enterprise with specific skills and duties (Solomon et al., 2001).

A small amount of literature was found that provided anecdotal evidence of professional isolation as an issue for certain groups of people. Warren (1995) made the assertion that advanced practice nurses working in a large teaching hospital suffer from isolation, because they are rarely able to network with advanced practice nurses who work in other areas of the hospital. Similar accounts were found for nurses in correctional facilities (McCann, 1996; Peternelj-Taylor & Johnson, 1995), legal nurse consultants (Anonymous, 1998), rural physicians (Lott, 1996), social workers (Blanchard, Osborn, Dick & Kelty, 1985), solo practitioners in law (Mount, 1992) and public relations (Crowley, 1985) and female Jewish clergy (Brooks, 1984), all of whom worked alone. Again, despite these papers having a focus on isolation in professional practice, none of them provided a clear explanation of the construct of professional isolation. All of these accounts discussed having limited access to professional peers. Many also suggested that improving professional networks and actively seeking peer support could reduce professional isolation. The seeming paradox of a person in a busy workplace suffering professional isolation was highlighted. Many of the groups discussed worked in professions that entailed working closely with people, but still experienced a sense of isolation. This is an important point, because it highlights the distinction between professional isolation and aloneness or social isolation.

A paper by Endsley and Brody (1981) presented a different perspective on professional isolation, making a case that researchers in two different university

faculties, child development and family studies, were professionally isolated because the two faculties did not interact or work collaboratively in any way. This suggests that isolation may be attributed to lack of access to sympathetic and supportive professional colleagues in closely related fields, as opposed to peers in the same profession.

Dussault, Deaudeline, Royer and Loiselle (1999) define professional isolation as “the unpleasant experience that occurs when a person’s network of social relations at work is deficient in some important ways, either quantitatively or qualitatively” (pp. 943-944). This definition is based on the work of Peplau and Perlman (1982) that takes a cognitive approach to understanding loneliness. Peplau and Perlman conducted studies in social settings; and therefore findings should be generalised to a professional setting only with caution. It is also possible that this definition places unnecessary emphasis on the negative aspects of professional isolation; several papers that examine rural nursing note that autonomy and the ability to practice independently are considered to be positive aspects of respondents’ professions (Hanson et al, 1990; Hegney, 1997).

An examination of the current literature suggested that there were differences between professional isolation and the construct of social isolation. Social isolation was described by Killeen (1998, p. 763) as being “a concept between loneliness and aloneness, dependent on whether choice is involved...social isolation with choice is aloneness, while social isolation without choice is loneliness.” This suggests that isolation may be alleviated if certain choices are made. The idea that professional isolation involved making a choice, to be or not to be isolated, could not be substantiated with the lack of information available about this construct. It was therefore deemed necessary to define professional isolation as a construct that is distinct from other types of isolation that may be experienced.

Isolation is defined in the Collins English Dictionary (1995) as “to be alone; a lack of contact between persons and groups”. Using this as a basis, professional isolation in this study is therefore defined as: “to be (or to feel) alone in one’s professional role, to lack contact with professional peers or groups”. The definition includes the feeling of being isolated, because it is noted by Dimond and Jones (1983) that a person can feel alone or isolated, despite support seemingly being available.

Measuring Professional Isolation

Only a small number of studies have examined the construct of professional isolation directly. In several of these studies the term used to describe the phenomenon

of professional isolation was loneliness or alienation. Examination of the research definitions suggests that the authors are testing for a construct similar to professional isolation, in that the studies are examining the experiences of people who are geographically or socially isolated in their professional role, and who therefore feel lonely or alienated from their professional peers.

Two articles were found that researched issues of isolation in nurses. Dunning et al., (1994) asked Australian diabetes nurse educators ($n = 197$) whether they considered themselves isolated, reasons for isolation, difficulties resulting from isolation and suggestions for addressing these problems. Of the respondents 57% ($n = 114$) stated that they felt isolated; of these, 110 were based in rural areas. Difficulties associated with isolation included problems maintaining quality standards and services, and pursuing education and self-development training. The most common ways to reduce isolation were to hold regional meetings and to increase professional networks.

The issue of loneliness of nurses in middle management positions ($n = 99$) were explored in a study that used the UCLA Loneliness Scale as a measure of loneliness in the workplace (Cook, Harrah, Howard, Rohr & Uricheck, 1992). Thirty-five percent of this sample identified themselves as being professionally lonely. The authors found a correlation between feelings of loneliness and perceived supportive professional relationships ($r = 0.61$), measured using two questions: Do you feel professionally lonely? and Do you feel you have an adequate number of supportive professional relationships? However, despite reporting the use of the UCLA Loneliness Scale, the results of this test are not presented in this paper, making it difficult to assess the usefulness of this tool in measuring the construct of professional loneliness.

Three other papers reported the use of the UCLA Loneliness Scale (in French translation) to measure professional isolation. Dussault and Barnett (1996) used this scale to measure the effects of a leadership program on the isolation of school principals ($n = 41$). This study found that feelings of professional isolation decreased significantly ($t = 2.72$, $p < 0.01$) following the completion of a peer-assisted leadership course involving a structured mentoring relationship in the workplace. Dussault and Thibodeau (1997) examined the relationship between professional isolation and work performance in school principals ($n = 109$). The study found that professional isolation was higher in this population than a sample of teachers used as a comparison. The study also found that higher professional isolation scores were associated with lower self-evaluations of work performance. Dussault et al., (1999) used the UCLA loneliness

scale to measure the relationship between professional isolation and occupational stress in teachers in the province of Quebec in Canada. The mean professional isolation score of the sample of 1110 teachers was considered moderate by the authors. There was also a significant low correlation ($r= 0.25$, $p= 0.0001$) between high professional isolation scores and high stress scores. These studies highlight the need to further examine the relationship between these two constructs, with the aim of developing interventions that could decrease perceived professional isolation and work-related stressors.

Several papers were found that examined issues of professional isolation using qualitative research methods. Gumpert and Boyd (1984) interviewed 12 small business owners with the intent of describing the effects of loneliness on this population. This research found that small business owners tended to work in isolation, either in a one-person enterprise or as the employer and manager of a small team of employees. The issues raised by the participants included the effect of loneliness at work on health, focusing in particular on stress related illness such as insomnia, gastrointestinal disorders and headaches, and the impact of loneliness at work on personal relationships. Decision making capacity was described as reduced by sole business people, because of the inability to consult with colleagues. Participants in this study stressed the importance of developing a professional network of people in similar or related fields that could provide a support base.

Davis (1987) examined the issues of isolation in rural teachers ($n= 1239$) in Western Australia and Canada using a series of semi-structured interviews. He found that 31% of teachers in rural Western Australia and 34% of teachers in rural Canada felt professionally isolated. They felt that there was a lack of relevant professional information, lack of interaction and sharing with other teachers, lack of stimulation from professional presentations and stress and burnout. Davis does not adequately describe the methodology used to collect and analyse data, and therefore these findings must be viewed with caution.

Mercer (1996) found that professional isolation in British school principals ($n= 39$) was related to management issues such as having to make difficult and unpopular decisions with minimal support from their managers, and being in a position of authority that made socialisation with other school staff difficult. The studies by Gumbert and Boyd (1984), Mercer, and Davis (1987) all suggest the need to develop both formal and informal support networks within the profession to help alleviate professional isolation.

Interventions to Decrease Isolation in Rural Health

There has been much written about the isolation inherent in rural nursing practice, and about the need to alleviate the stresses associated with rural practice. There are a number of papers in the nursing literature that describe interventions that have been trialled to alleviate professional isolation and decrease stress. However, few of these papers have conducted an empirical assessment of the interventions to ascertain if they have had any effects. For the purpose of this literature review, only papers that have conducted some form of empirical testing of an intervention have been examined. Interventions in the papers reviewed are those that have been enacted and formally reviewed, or those that are proposed and testing has been conducted prior to commencement of a project. Papers reviewed describe studies relating to either interventions for palliative care workers, or for rural health professionals.

Kristjanson et al. (1997) conducted a pilot test of an interdisciplinary training course in palliative care. An intensive two-week training course in palliative care principles and practice was held for palliative care professionals from rural areas of Canada ($n=13$). The effectiveness of the training course was tested using a repeated measures method. The results of this testing showed that knowledge of palliative care increased following attendance at the training course, and that the increased knowledge levels were maintained three months post intervention. Attitudes towards death and dying were also shown to have changed, with participants becoming more open and accepting of death. The change in attitude remained when tested three months after the training course. Chart audits revealed changes in practice in the clinical area, including increased consultation with other palliative care practitioners, more frequent family counselling and use of alternative routes of medication administration to effect symptom management.

Another paper used a pretest-posttest design to evaluate a continuing education programme designed to assist rural nurses ($n=55$) involved in providing oncology services (Rushton, Nail & Brown, 1997). A one-day education seminar about oncological nursing was presented in six rural locations in Utah (USA), and the oncology knowledge of participants was tested at three time points. Results of the evaluation showed that there was an increase in knowledge immediately following the course, but retention after two months was lower. However, participants still showed higher test scores two months after the course compared with the test completed prior to

the beginning of the course. The response rate for this study was only 44%, so results may not be representative of all participants in the course.

Both Kristjanson et al. (1997) and Rushton et al. (1997) report positive effects following a training programme. However, the main aim of both programmes was to increase clinical knowledge, and therefore other effects of convening education sessions for rural participants who may often work in isolation were not examined. It is possible that attending courses with other rural practitioners may also have the added benefits of promoting the formation of professional networks and may encourage sharing of ideas and information.

An action research project conducted in the Barossa Valley area of South Australia aimed to bring rural palliative care workers (sample size not reported) together to form support groups that could have the function of providing support and opportunities for debriefing, as well as having an educational component (Elsey & McIntyre, 1996). The evaluation of this project found that participants reported having an increased professional network in palliative care and that collaboration increased between health care providers. Face-to-face meetings were reported to have been the most successful method of networking by participants in this project. It was noted that support groups were most successful when nursing management and local medical practitioners were supportive of the groups' efforts. The findings of this study suggest that education sessions can be tailored to allow for networking and debriefing as well as didactic teaching and learning.

The efficacy of support gained from within the workplace was reported in two studies. A qualitative study of how oncology nurses ($n=38$) develop clinical expertise found that having a mentor (generally in an informal arrangement) was important for inexperienced nurses (Johnson, Cohen & Hull, 1994). Mentors offered both personal and professional support to new nurses during the stressful transition from new staff member to experienced nurse. Nurses also modelled behaviours and learned psychomotor skills from mentors in the workplace. Mentors were considered a crucial component of the learning process for inexperienced nurses. Cruchet (1994) reports on a pilot test study of peer support groups for nurses working on an oncology/haematology ward. The death anxiety of the participants ($n=20$) was measured prior to commencement of the support group and after three one-hour support group sessions. The support group discussed how members had coped with patient deaths on the ward. A pretest-posttest method was used to measure death anxiety using

Templer's Death Anxiety Scale. Death anxiety scores were reported as being lower after attending at least one support group meeting, however, the statistical findings of this study were not presented, making the validity of the findings questionable.

Interventions that aimed to decrease isolation by using new technologies were explored as part of this literature review. Use of Internet, email and videoconferencing technologies may offer significant benefits to geographically and professionally isolated rural health professionals. Few studies have yet to be completed that detail the effectiveness of information and telecommunications technology to assist rural health care workers, although it seems likely that with the use of these technologies increasing rapidly these studies will be valuable. Togno, Lundin, Buckley and Hovel (1996) conducted a survey of Australian rural health professionals (n= 284) to determine the appropriateness of using new technologies to increase communication among this group. The study found that 39% of respondents felt that use of Internet technology would be helpful in their clinical practice, and 59% would like to use computers more in their workplace. However, the survey found that respondents felt that lack of information and technical support would inhibit their effective use of these technologies at present.

A Scottish study found that rural nurses (n= 63) had limited knowledge of resources available on the Internet, and were also unaware of databases such as Medline and CINAHL that provided access to professional literature (Farmer & Richardson, 1997). Workshops were held to teach this group of rural nurses how to use electronic media to enhance their information gathering skills. Workshops were attended by 51 nurses. The nurses felt that email and discussion groups had potential to decrease their isolation, however, lack of computer resources, time and computer skills were barriers at the time of the study.

In summary, only a small amount of literature relating to professional isolation could be found, and there was a paucity of empirical data about professional isolation in nursing populations. Few authors have attempted to define professional isolation; the available definitions appear to focus on the negative aspects of professional isolation, which may not be as pronounced for rural nurses who value working autonomously in an extended role. The literature available suggests that professional isolation is related to decreased access to professional peers and the lack of professional support resulting from this isolation. Few papers were found that measured professional isolation, and no instruments were found that were designed to measure isolation in a professional

setting. Some literature described interventions that were designed to assist isolated practitioners, but none measured the effects of the interventions on feelings of professional isolation. This literature review has emphasised the need to further examine the construct of professional isolation, so that interventions can be planned to ameliorate the more negative effects of this phenomenon.

Conceptual Framework

No conceptual or theoretical framework could be found that articulated the issues being explored in this study. Therefore, a conceptual model was developed that could be used to guide development of the study and provide a framework to assist the researcher collect and analyse data. No studies described the issues of professional isolation, burnout, job satisfaction and intention to remain in palliative care in a sample of rural nurses. Therefore, research from related disciplines such as rural general practice and urban nursing populations was used to build a conceptual framework for this study. Figure 1 shows the conceptual framework developed to guide this research project. The conceptual framework shows the hypothesised relationships between professional isolation, burnout and job satisfaction, and surmises that each of these concepts will impact on RPCNs' intention to leave current palliative care position.

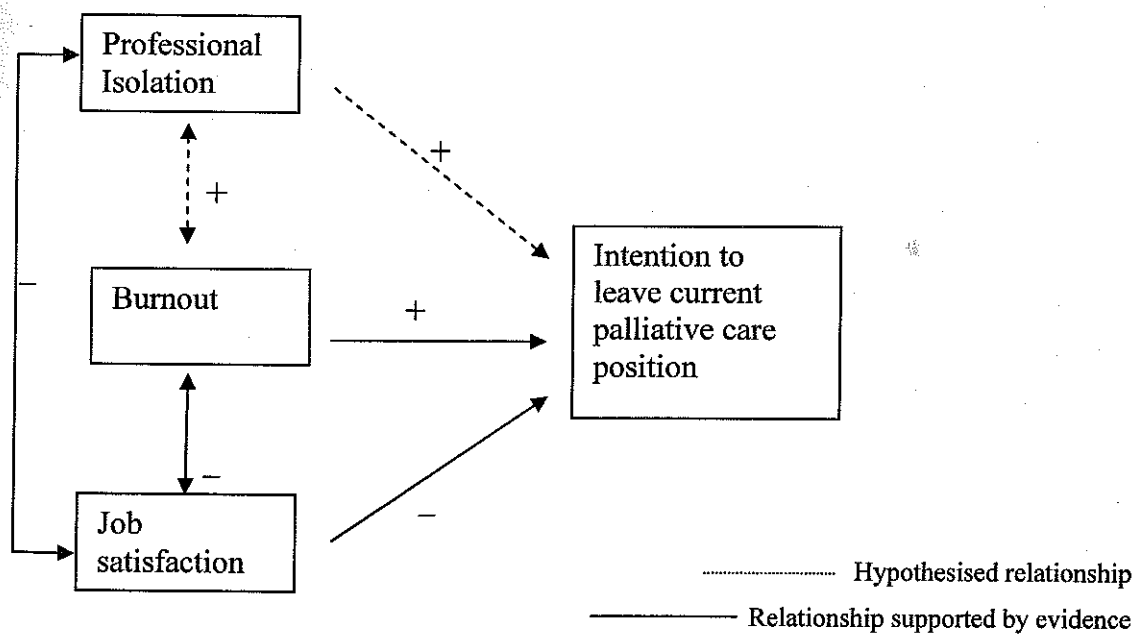


Figure 1: Conceptual Model of Stresses Impacting on RPCNs

The relationship between burnout and job satisfaction has been measured by several authors. Molassiotis and Haberman (1996) examined the incidence of burnout in a sample of 40 bone marrow transplant nurses, and examined the relationship

between burnout and reported job satisfaction. Job satisfaction was measured using the 43-item Measure of Job Satisfaction Scale and burnout was measured using the MBI. Strong correlations were noted between overall job satisfaction scores and the three subscales of the MBI (EE: $r = -0.67$, $p < 0.001$; DP: $r = -0.81$, $p < 0.01$; PA: $r = 0.80$, $p < 0.001$), indicating that feelings of emotional exhaustion and depersonalisation increase as job satisfaction decreases, and that feelings of job satisfaction increased as feelings of personal accomplishment increased. Similar results were found in a study of carers ($n = 173$) in residential facilities for people with intellectual disabilities (Shaddock, Hill & van Limbeek, 1998). This study contrasted scores of carers who expressed satisfaction at work with scores from the MBI, and found that those who expressed satisfaction tended to have lower burnout scores ($\chi^2(5) = 21.8$, $p < 0.001$).

A Canadian study examining burnout and job satisfaction in a sample of cancer care providers ($n = 681$) found that both the EE subscale of the MBI and low levels of reported job satisfaction were related to workers considering seeking alternative employment (Grunfeld, et al., 2000). Logistic regression analysis was used to examine relationships between the constructs. The odds of considering different employment options was increased in participants reporting high levels of EE (odds ratio 2.38, $p = 0.001$), and the likelihood of seeking other employment decreased as job satisfaction increased (odds ratio 0.55, $p = 0.002$). Pan et al. (1995) surveyed 3514 nurses to determine what factors influenced their intentions to remain in the nursing profession, and found that levels of job satisfaction were the greatest indicator of intention to leave or remain in current employment. However, the study does not present the specific statistics to demonstrate this, and therefore these findings must be viewed with caution. A further study ($n = 358$) that tested a theoretical model of staff retention and quality care emphasised the importance of job satisfaction in retaining staff (Leveck & Jones, 1996). Job satisfaction had the largest effect on retention of staff ($\beta = 0.74$, $p < 0.05$).

The conceptual framework developed suggests that there are linkages between the constructs of burnout and professional isolation that may impact on rural palliative care nursing practice. However, only limited evidence was found in the literature that supported this hypothesis. No studies were found that made a direct link between burnout and professional isolation, but several papers suggested that isolation increased occupational stress. The association between occupational stressors and burnout has been articulated in a meta-analysis conducted by Lee and Ashforth (1996). A number of studies have suggested that isolation in the workplace was a source of stress for

palliative care workers (MacLean & Kelly, 2001; McConigley, 1998; Wilkes & Beale, 2001). In each of these studies the authors used qualitative research methods and therefore have not quantified the relationship between professional isolation and occupational stress or burnout.

No research could be found that quantifies professional isolation and burnout in an RPCN sample. Therefore, literature from related disciplines, such as rural general practice and nursing management, have been examined to begin to develop a conceptual model of issues in rural palliative care nursing. Trollor (1995) conducted a training needs analysis ($n=113$) of rural GPs involved in providing palliative care. Nearly 37% of the sample indicated that professional isolation was a problem for them in their clinical practice. Alexander and MacLeod (1992) reported that 40% of the palliative care matrons in their study ($n=94$) found feeling isolated considerably or extremely stressful. However, the relationship between professional isolation and stress was not quantified in any way. It seems likely that RPCNs reporting high levels of professional isolation are more likely to also report higher levels of burnout, because professional isolation is most often discussed in the literature as a stressful experience. The links between occupational stress and burnout have been clearly defined by a meta-analysis of 58 research articles (Lee & Ashforth, 1996).

The effects of burnout on intention to leave employment were tested on a sample of child support workers ($n=139$), using multiple regression techniques (Harrington, Bean, Pintello & Mathews, 2001). Emotional exhaustion (measured using the MBI) accounted for 15% of the variance in intention to leave ($\beta=0.31$, $p=0.001$). Shaddock et al. (1998) tested a group of people working in residential care facilities for intellectually disabled people. The authors reported a significant difference in burnout scores between respondents reporting a desire to leave their current job and those respondents who intended to remain in their profession ($\chi^2(5)=27.5$, $p<0.001$). Respondents with higher levels of burnout were more likely to have a desire to leave their current position.

No research was found that studied relationships between professional isolation and job satisfaction, although it seems likely that there would be a negative correlation between the two constructs; as professional isolation increases, it is likely that job satisfaction would decrease. As well, no research has been undertaken to investigate the association between professional isolation and intention to leave current position,

although it is possible that increasing professional isolation could be related to increased intention to leave.

This project aimed to explore the relationships between each of the constructs in this conceptual model. This study quantified the levels of burnout, professional isolation and job satisfaction reported by RPCNs, and also explored the intention of RPCNs to either remain working in palliative care or to cease working as an RPCN. Relationships between burnout, professional isolation, job satisfaction and intention to remain in palliative care were tested for relationships with demographic variables, to determine if there were any indicators of RPCNs most at risk of leaving palliative care. Then, correlations between burnout, professional isolation and job satisfaction were examined, and the correlation between each of these and the intention to remain in palliative care were tested. This analysis was structured with the aim of providing a clearer picture of both positive and negative aspects of rural palliative care practice. Examining the impact of professional isolation, burnout and decreased satisfaction in the workplace on RPCNs' intention to leave palliative care work helps elucidate strategies that may assist specialist palliative care nurses to remain working in rural communities.

Conclusion

This chapter has described the relevant literature pertinent to understanding the issues related to rural palliative care. An extensive search of the literature has revealed a paucity of information about rural palliative care nursing, which suggests that conducting research in this area is timely. The available literature indicates that rural palliative care nursing may be a stressful occupation, with limited support being available to RPCNs to negate the effects of stress in the workplace. It is therefore essential that attention be paid to gaining a clearer understanding of the needs of RPCNs and to developing interventions to assist RPCNs in their practice and enhance the rural workplace.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter details the methodology used to conduct a study of the education and support needs of rural palliative care nurses in Western Australia, and to examine issues of burnout and professional isolation in this population. The project design and data collection methods are described, and then data management and analysis techniques are outlined. Measures used to examine the reliability and validity of the research process are described. Finally, ethical considerations related to the research project are discussed.

Project Design

This study was a two-phase intervention project, comprising an analysis of training and support needs, an educational intervention, and a finally an evaluation of the effectiveness of the intervention. Phase I used a descriptive, correlational design to determine the learning needs of RPCNs in WA. This data was used to plan an intervention to assist RPCNs in their professional role. Phase II involved implementing the intervention, evaluating the effectiveness of the intervention, and also examined major issues confronting RPCNs in WA, including burnout, professional isolation, job satisfaction and intention to remain in palliative care practise. For clarity, each phase will be discussed separately. Although this approach makes it easier to fully describe the project, it should be noted that both phases of the study were intricately linked.

Phase I: Conducting a Learning Needs Assessment

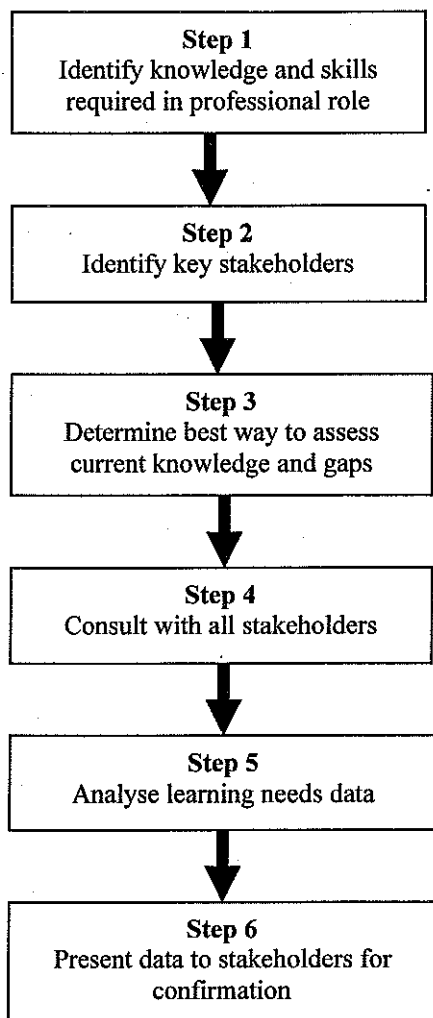
Phase I of this research was the assessment and planning component of the project. A learning needs assessment tool was developed to identify gaps in RPCNs' current knowledge, and to begin to plan training to rectify the gaps identified (Tovey, 1997). The instrument was pilot tested, then administered to palliative care nurses in rural Western Australia. The data from the survey were analysed to assist in the planning process for Phases II.

The intention of this phase of the project was to determine the needs of rural health practitioners providing palliative care. Specifically, the learning needs of rural practitioners were examined, as well as the need for an increase in access to palliative care information and services. The key areas examined were:

- Aspects of palliative care for which health professionals sought information
- Sources of palliative care information that practitioners identified and used
- How palliative care resources were accessed by rural practitioners
- Aspects of palliative care for which information was not available
- Aspects of palliative care provision that practitioners identified as areas in which they needed more information
- The preferred format to meet the identified information needs of rural palliative care providers.

Pedder (1998) suggests using a six-step approach to conducting a needs assessment, as shown in Figure 2. Using this approach, the needs analysis for this study was begun by identifying the skills and knowledge required by RPCNs to be able to function effectively in their professional role. This was done by examining the professional literature, and also by consulting palliative care experts who were able to confirm the key areas identified in the literature.

Key stakeholders were identified who would be able to provide information about the education needs of RPCNs. It was assumed that RPCNs would be the most appropriate people to identify their own learning needs. However, Williams (1998) cautions that individuals may identify their own "learning desires" rather than gaps in knowledge that need rectifying, and therefore learning needs were assessed using two different instruments. Gaps in palliative care knowledge were assessed using a learning needs tool, and respondents were also asked about how confident they felt about providing clinical palliative care using a tool developed to measure confidence in clinical palliative care. Open-ended questions were included in the questionnaire so that respondents could clearly articulate any learning needs that were not included in these instruments.



Adapted from Pedder, L. (1998). Training needs analysis. *Nursing Standard*, 13(6), 50-56.

Figure 2: Learning Needs Assessment Process

Data collected from the needs assessment were analysed using descriptive statistical methods. Answers to open-ended questions were analysed using content analysis techniques. Tovey (1997) describes five expected outcomes of learning needs assessment. These are:

1. A specific statement of learning areas requiring attention
2. Examination of any non-learning issues that may impact on learning
3. An examination of the standard of knowledge/skills required
4. Formulation of specific learning outcomes and learning objectives
5. A cost analysis of education options.

Each of these areas was examined, so that a complete analysis of the learning needs of RPCNs was conducted.

During this phase of the project information about professional isolation, burnout and job satisfaction levels reported by RPCNs was collected. The initial intention of the collection of this information was to enable comparison with data collected in Phase II. However, a large number of RPCNs left palliative care in the time between Phase I and Phase II being implemented. As well, several new palliative care services were developed or identified, and nurses working in these services were included in the Phase II sample. Therefore, comparisons between Phase I and II data could not be made. However, data collected in Phase I was useful to assess the reliability of the instruments developed for this study.

Instrument Development

Polit, Beck and Hungler (2001) suggest that wherever possible, it is best to use an established and validated research instrument to collect data, to ensure clarity, sensitivity and absence of bias. Use of an established instrument may also be helpful to allow comparison of results with those from other studies. For the purposes of this project the Maslach Burnout Inventory was used to measure burnout, a job satisfaction measure was adapted from an instrument designed by Hingley and Cooper (1986) and an intention to leave position scale was adapted from Jolma (1990). However, no instruments were found that were suitable for measuring professional isolation or confidence in clinical palliative care delivery. Therefore, instruments were developed for this purpose. Furthermore, a learning needs assessment tool was developed that was specific to rural palliative care practice.

Instrument development has been described by Davis (1996) as a four-stage procedure. First, the concept to be measured should be clearly defined. Secondly, items in the instrument are developed. Thirdly, the instruments should be tested for content validity and construct validity, and finally the reliability of the instruments should be tested. Each of these stages was followed to develop the instruments used for this study.

A questionnaire was developed that would allow the researcher to collect a large amount of information quickly from a geographically widespread population. The questionnaire included six sections:

A. Demographic profile (see Appendix B)

- B. Education and learning needs assessment, developed by the researcher (see Appendix C)
- C. The Confidence with Palliative Care Measure (CPCM), developed by the researcher (see Appendix D)
- D. Professional Isolation Measurement Scale (PIMS), developed by the researcher, that also incorporated a job satisfaction scale, adapted from Hingley and Cooper (1986) and a measure of intention to leave current employment, adapted from Jolma (1990) (see Appendix E)
- E. Measure of professional burnout, developed by Maslach and Jackson (1986)

Section A: Demographic profile.

The demographic information collected as part of this survey was comprised of questions relating to factors that have been reported to have an impact on the burnout scores of palliative care nurses in several research studies (Masterton-Allen et al., 1985; Mor & Laliberte, 1984). Questions were asked about the length of time employed as a nurse, and specifically as a nurse in palliative care, the type of palliative care service the respondent worked in, the amount of hours worked (i.e. *full time, part time, casual*), educational qualifications and age. An added question referred to the respondent's profession, because this could not always be ascertained from the information available for sample selection. Non-nursing professionals, such as volunteers or nursing assistants, were not included in the sample for this research. Information was also sought regarding the technology available to respondents, so that the accessibility of technology for this group of nurses could be determined. The access to information technology section of the demographic profile was used in Phase I only, to collect information that would assist in planning the intervention.

Section B: Education and learning needs assessment.

A 16-item instrument was developed that explored the interest of respondents in receiving education about a list of topics relating to palliative care. The list was developed from the palliative care literature and includes major facets of palliative care delivery. Two items, management skills and applying for funding, were incorporated as a result of the researcher's own experiences as an RPCN and from anecdotal reports of difficulties experienced by RPCNs in these areas. Respondents were asked to score each topic on a scale of zero to five according to how interested they were in learning

more about that topic, with zero representing *no interest* and five representing *very interested*. A free response question was included so that respondents could add any topics in which they were interested, that had not been included in this list.

To assist in planning interventions for RPCNs, two sets of questions were developed that sought information about the services that would be of most benefit to this group, and the best ways of receiving the requested service/s. Five possible services were offered. The list was developed following a review of the literature and bearing in mind resource constraints, was limited to services that could realistically be offered as an intervention in this study. Respondents were then asked to provide information about how helpful each of six different methods of providing a service to rural areas were, using a six point Likert-type scale, with responses ranging from *not helpful at all* (zero) to *very helpful* (five).

Section C: Confidence in palliative care measure.

The 12-item CPCM was developed to determine the level of confidence respondents felt about their ability in key areas of palliative care. The 12 items represent critical nursing behaviours as described in the palliative care literature. Respondents were asked to rate how confident they were with each of these behaviours, using a six-item scale. Zero on this scale was denoted *not relevant to me*, because it was expected that some respondents would have no experience in some of the areas listed in this instrument. A score of one on the CPCM indicated *not confident at all*, and five indicated *confident with all cases*.

CPCM scores were summed to give a score representing overall confidence in palliative care. Also, mean scores for individual items on the CPCM were calculated to help identify areas of palliative care in which RPCNs felt the least confident. This information was helpful when considering the content of the intervention.

Section D: Professional isolation measurement scale.

The PIMS is a 14-item scale that examines the extent of professional isolation felt by respondents. Items were developed using the key themes relating to professional isolation found in the literature. The scale is divided into three subscales: the Isolation Subscale, the Job Satisfaction Subscale and the Intention To Leave Subscale. The PIMS is scored from zero (*never*) to six (*always*), to be consistent with the scoring format for the Maslach Burnout Inventory. Respondents received a total PIMS score, ranging from 0 to 84. Low scores indicated low levels of professional isolation, higher

scores indicated increased levels of professional isolation. Separate scores were also calculated for each subscale.

The isolation subscale.

The themes of collegial support, opportunities to debrief and assistance with decision making are addressed in an eight-item subscale of the PIMS, the Isolation Subscale. The items in the Isolation Subscale were developed after an extensive literature review. An isolation score is calculated by summing the eight scores in the subscale. The resulting Isolation Score can range from 0 to 48, with low scores indicating low levels of professional isolation and high scores suggesting that professional isolation may be problematic.

Job satisfaction subscale.

A three-item subscale was adapted from Hingley and Cooper (1986) to measure job satisfaction. Hingley and Cooper used a seven-item scale to assess job satisfaction as part of their study of occupational stress in nurse managers. However, four of the items in this scale were similar to items in the Maslach Burnout Inventory and were not included in this instrument to avoid repetition. Scores in this subscale range from 0 to 18, with lower scores indicating high levels of job satisfaction, and higher scores suggesting that respondents may be experiencing dissatisfaction with their work.

Intention to leave subscale.

This three-item subscale was adapted from the Intention to Turnover subscale of the Michigan Organizational Assessment Questionnaire, as described by Jolma (1990). This three-item scale asks questions to ascertain the respondents' intention to leave their current employment. Potential scores on this subscale range from 0 to 18, with low scores indicating little intention to leave and high scores suggesting that respondents have a strong intention to leave their current position.

Section E: Maslach Burnout Inventory.

The Maslach Burnout Inventory (MBI) was developed in 1981 and has been widely used in studies of professionals including teachers, police officers, social workers, medical practitioners and nurses (Maslach & Jackson, 1986). The MBI has been used to measure burnout in a large number of nursing settings, and has been used in the palliative care setting by Mallett et al. (1991), Masterton-Allen et al. (1985), Mor and Laliberte (1984) and Turnipseed (1987), providing some baseline data that were useful for comparison.

The MBI is a 22-item scale that consists of three subscales that measure emotional exhaustion (EE), depersonalisation (DP) and personal accomplishment (PA). Each item is rated on a continuum between zero and six, with zero representing never and six representing always. Each subscale is scored separately, with respondents receiving three scores. A total burnout score is not calculated.

The reliability and validity of the MBI have been extensively tested by the authors (Maslach & Jackson, 1986). Internal consistency was tested using a large sample ($n = 1316$). The Cronbach's alpha scores for each subscale were as follows: EE subscale $\alpha = 0.9$, DP subscale $\alpha = 0.79$, PA subscale $\alpha = 0.71$. Test-retest reliability was also measured using a smaller sample ($n = 53$) to determine the stability of the instrument over time. The reliability co-efficient for each subscale was: EE subscale $r = 0.82$, $p < 0.001$, DP subscale $r = 0.60$, $p < 0.001$, PA subscale $r = 0.60$, $p < 0.001$.

The construct validity of the MBI has also been tested in several studies that were described by Maslach and Jackson (1986). Factor analysis was used to confirm that items on the MBI were clustering on the three constructs examined by the subscales of the instrument. The convergent validity of the instrument was tested by comparing MBI scores with behaviours reported by co-workers in a mental health inpatient setting ($n = 40$), and by spouses of police officers ($n = 142$). In both studies behaviours such as excessive fatigue and lack of interest in relating to patients/clients were described as common in participants whose MBI scores suggested they were suffering high levels of burnout. Several studies tested the discriminant validity of the MBI, and confirmed that the instrument was able to discriminate between burnout and related constructs such as stress and job satisfaction. A sample of 91 people completed the MBI and an instrument that measured job satisfaction. Only a small correlation between job satisfaction and MBI scores was noted (EE score $r = -0.29$, $p < 0.05$; DP score $r = -0.22$, $p < 0.02$; PA score $r = 0.17$, $p < 0.06$), suggesting that the constructs of burnout and job satisfaction were related, but not identical.

Additional components of the instrument.

The instrument designed to survey RPCNs was used for both the pilot test and Phase I of this study, and was also used in Phase II to survey two groups of RPCNs. It was therefore necessary to have several additional sections that were used to gather specific data for one part of the study only.

Pilot test evaluation.

A one-page question sheet was attached to the instrument used in the pilot test to determine any areas that respondents felt should be changed (see Appendix F). A question was also asked about the length of time taken to complete the questionnaire, so that the researcher could be sure that respondents were not being asked to complete an overly long questionnaire.

Satisfaction with education session measure.

Participants in the Palliative Care Educator workshops were asked to complete a student satisfaction survey at the completion of the day (see Appendix G). The survey sheet asked questions about the participant's level of satisfaction with each of the elements covered in the workshops. This information was collated at the end of each workshop and data were analysed. Suggestions were considered and changes made to the next workshop format as required. A second satisfaction survey was included with the final questionnaire used in Phase II (see Appendix H). This satisfaction survey asked respondents for information about their level of satisfaction with the *Over Handover Package*.

Exposure to education questionnaire.

Respondents in Phase II were asked to provide details of exposure to any palliative care related education that they had had in the preceding 12-month period, by completing the Exposure to Education questionnaire (see Appendix I). This instrument asked questions about the frequency of access to palliative care education, and also the type of educational opportunity used. These data were used in the analysis of data collected in Phase II, so that the impact of any education other than the Phase II intervention could be controlled for when analysing the outcomes of the intervention.

Content Validity of the Instruments

Nunnally and Bernstein (1994) asserted that when developing an instrument to measure a construct, there must be a clear link between the construct and the items written to measure it. Testing the content validity of an instrument can therefore be considered *a priori* testing of the concept and the theories underpinning the instrument (Tilden, Nelson & May, 1990), and is a vital part of determining the ability of the tool to measure the desired construct. Lynn (1985) suggests that there are two stages to content validation:

1. Development of the instrument, including clearly identifying all aspects of the construct, reviewing the professional literature for added clarity and developing the instrument
2. Judgement by a panel of experts in the field being researched.

For the purposes of this study, qualitative data generated from the researcher's earlier work (McConigley, 1998) and an extensive literature review were used to guide the formulation of the instrument.

Following a review of the literature, a panel of 10 palliative care experts was asked to examine the resultant questionnaire to confirm that the areas of content, style and comprehensiveness were adequately addressed, thus ensuring the content validity of the instrument (Grant & Davis, 1997). The panel included clinical nurses, medical practitioners and nursing academics who had an understanding of issues relevant to rural palliative care practice. Expertise in either content or methodological issues was sought to ensure that the validity of the instrument was assessed thoroughly (Beyea & Nicoll, 1999). Panel members were sent a copy of the questionnaire with a covering letter. Each of the panel members was asked to read the questionnaire carefully and to comment on the presentation and layout of the tool, how easy the items were to understand, whether they felt the questions asked were of relevance to the area being studied, and whether there were other items that they felt should be included. Responses were received written directly on the questionnaires, or via email or telephone. All responses were collated. Panel members were asked to comment on any items that were considered problematic, and asked to suggest any additions they felt would strengthen the instrument. The panel made a total of 12 suggestions. The researcher and principal research supervisors considered every suggestion made by the panel. Each suggestion was considered in the context of the literature review and the project aims. Suggestions were accepted if they were consistent with the professional literature and appeared relevant to the project (Waltz, Strickland & Lenz, 1984). A total of six changes were made to the questionnaire, these are outlined in Table 1.

Table 1: Changes Made to Questionnaire in Response to Content Expert Advice

| Section of questionnaire changed | Changes made | Rationale for change |
|---|--|--|
| Section A: Demographic profile | i. Question added about level of nurse (i.e. enrolled nurse, registered nurse) | i. Allows comparison between nurses with different levels of experience and responsibility |
| | ii. Location response options altered to use HDWA boundaries | ii. Allows comparison with HDWA information and with cancer registry data |
| | iii. Community television added to technology list | iii. The Westlink community television channel was widely used by a large palliative care education provider in Perth to provide seminars for rural participants |
| Section B: Services assessment | i. Changed range of scores from 0-7 to 0-5 | i. Made scores for services assessment more clearly understood by calculating a score out of five for each service |
| Section C: Learning needs assessment | i. Changed range of scores from 0-7 to 0-5 | i. Made scores for services assessment more clearly understood by calculating a score out of five for each service |
| Questionnaire formatting | i. Page orientation changed from landscape to portrait | i. Questionnaire easier for respondents to use |

Internal consistency and reliability.

The internal consistency of the instruments used in this project was measured using Cronbach's alpha coefficient. All of the instruments used to measure specific variables were tested for internal consistency; the learning needs assessment, the CPCM, the PIMS and PIMS subscales and the MBI subscales were all tested separately to ensure that each instrument demonstrated acceptable reliability statistics. This test was done using data from the pilot study, and was repeated each time the instrument was used in this study. The results of these tests are reported in subsequent chapters of this dissertation. An alpha coefficient of greater than 0.70 was considered desirable in this research, because the research involves the use of predictor tests and hypothesised measures of a construct (Nunnally & Bernstein, 1994).

Pilot Testing

A pilot test was conducted to identify the strengths and weaknesses in the research design prior to conducting the main study (Roberts & Taylor, 2002). The pilot study for this project was used to test the questionnaire that had been designed to survey RPCNs in WA about their learning needs and issues of importance in their professional role. The pilot study was used to highlight difficulties and inconsistencies in the questionnaire, so that they were corrected prior to the administration of the questionnaire (Summers, 1993). The pilot test also identified potential problems with the research design prior to commencement of data collection in Phase I. This allowed minor changes to be made to the research design prior to the main study being conducted.

The pilot study for this project was conducted in the same way that was planned for the main study, so that problems with the survey instrument and data collection procedures could be identified prior to commencement of the main study. Roberts and Taylor (2002) suggest that the sample used for the pilot sample should be drawn from the same population that will be used for the main study. However, because the total population of RPCNs in WA was small, it was decided to use a different population to obtain the pilot test sample. This allowed the instrument to be tested without reducing the total number of RPCNs available for the main study. A group of 10 palliative care nurses based in rural Australia and 10 urban nurses based in Perth were surveyed for the pilot test. The nurses sampled all had palliative care nursing experience in an Australian practice setting. The two different groups of palliative care nurses were used to determine if there were differences in the scores of rural and urban nurses that may indicate that the isolation tool was measuring a construct more prevalent in rural populations.

Questionnaires were posted to the 20 pilot group participants. Participants in the pilot study were asked to complete all six sections of the questionnaire. An extra instrument was added to the pilot questionnaire, that asked respondents to indicate whether the questionnaire had been too long, was easy or difficult to complete, had any errors or problems and whether they had any suggestions for improvement. Stamped, addressed envelopes were included to facilitate return of the forms.

Data were analysed to test the analysis plan developed for Phases I and II. In particular, descriptive statistics were calculated for demographic data, scores were

calculated for the CPCM, MBI and PIMS by summing the appropriate answers for each scale, and relationships between variables were tested.

Answers to the free-response questions included in the questionnaire were treated as qualitative data. Answers were transcribed exactly, including emphasis and punctuation, and were analysed using a content analysis technique.

Surveying Rural Palliative Care Nurses

Phase I of the study used a descriptive-correlational design to assess the learning needs of RPCNs in WA. Also, a profile of the demographic characteristics of the RPCN sample from WA was developed, and levels of confidence in palliative care, professional isolation, burnout and job satisfaction were tested for this group, as were the RPCNs' intentions to leave palliative care. Data was collected using a mailed questionnaire comprising six sections; the demographic information sheet, learning needs assessment, CPCM, PIMS and the MBI.

A non-probability sample was used for Phase I. RPCNs are a disparate group that are difficult to identify, due in part to the high turnover of RPCNs and the multiple nursing roles required of one nurse. The RPCN population in WA is small; all RPCNs who could be identified were surveyed. The sample surveyed for Phase I included all members of Palliative Care WA whose postal address was in rural Western Australia, and who were nurses (n= 50). Another 19 nurses were identified as having an interest in palliative care from either the Palliative Care WA brochure entitled *Country Services 1999* or the report *Overview of Palliative Care Services in Rural Western Australia* (Matthews, 2000) were also asked to participate. In total, 69 questionnaires, along with an explanatory letter, were posted. A stamped addressed envelope was included for respondents to return the questionnaire when completed. Follow-up questionnaires were not sent to non-responding RPCNs due to the budgetary constraints of this project.

The data from the learning needs assessment were used to guide the decisions made regarding the intervention provided to RPCNs. Data collected using the CPCM, PIMS and MBI were also used to test the reliability of these instruments prior to data collection commencing in Phase II.

Phase II: Providing for the Learning Needs of RPCNs

Phase II of this project involved the implementation of an intervention that was planned to assist RPCNs in their professional role. The intervention involved conducting one-day workshops in rural areas to assist RPCNs to develop their role as a

palliative care educator. As part of the workshop format, all participants were provided with teaching packages that included all of the information and resources required to conduct a series of palliative care education sessions. The teaching packages were an adaptation of a palliative care teaching resource entitled *Over Handover* (see Attachment). The adaptation of this resource material was done in partnership with the Midwest Area Health Service (New South Wales). The intervention will be discussed in detail in Chapter Four of this thesis; a brief summary is given below.

To meet the needs of RPCNs to access palliative care education in their own area, it was decided to assist senior palliative care nurses in acquiring the skills and education materials to provide palliative care education on a local level. It was envisaged that senior RPCNs could provide palliative care education to other health care professionals, for example auxiliary staff such as nursing assistants and community members.

The palliative care educator workshops were held in six locations in rural Western Australia (see map in Appendix J). The locations of the workshops were decided in consultation with key stakeholders in each area. In total, six workshops were held during the months of April, May and June 2001. There was a total of 53 participants in the six workshops. All participants were from the southern half of Western Australia, because it was not possible to hold a workshop in the northern part of the state. All of the workshop participants were self-identified RPCNs who had an interest in palliative care education.

Nurses in rural WA were invited, via flyers sent to major health care providers in rural WA, to attend the palliative care educator workshops (See Appendix K). The workshops were advertised as being suitable for any nurse who had a role in providing palliative care education in their workplace. RPCNs were asked to register their interest in attending with the researcher by completing application forms. A small fee was charged to participants to assist with workshop costs. Two RPCNs expressed interest in attending, but were financially disadvantaged; fees were waived for these applicants. Nurses who attended the workshops were asked to complete summative evaluation forms to provide information about their perceptions of the day.

Phase II: Testing the Effectiveness of an Education Intervention

Phase II of this project also examined the impact that the intervention had on participants' levels of confidence in all aspects of palliative care practice, professional isolation, burnout and job satisfaction, and RPCNs' intention to leave palliative care

practice. Information collected in this phase was also used to explore relationships between professional isolation, burnout, job satisfaction and intention to leave palliative care.

Data were collected using a survey process similar to that used in Phase I. The questionnaire used for Phase II included the demographic profile, CPCM, PIMS and MBI. Two additional instruments were included: the Satisfaction with Intervention questionnaire and the Exposure to Education questionnaire.

Two different groups completed questionnaires as part of Phase II of the project. Group A consisted of the RPCNs who attended the palliative care educator workshops, and Group B was a comparison group of RPCNs who did not attend any of the workshops. A total of 53 RPCNs were surveyed in Group A, and another 57 were surveyed in Group B, making a total sample of 110. The comparison group was useful to evaluate the outcomes of the Phase II intervention and to determine if any changes in the variables over time could be attributed to attendance at a workshop (Polit et al., 2001).

The Group A sample were self selected, that is, they chose to attend a workshop and were then included in the sample. Group A were asked to complete a questionnaire on three occasions: Time 1, prior to the workshop beginning, Time 2, at the end of the workshop and Time 3, three months after the workshop. The researcher administered questionnaires for Times 1 and 2 at the workshops. The questionnaire for Time 3 was posted to each participant, with a reply paid envelope provided for ease of return. Questionnaires given to workshop participants were coded with a three-digit code that indicated the location of the workshop and a number to identify the participant. Using these codes data were matched and repeated measures testing was performed to test for changes in variables over time.

Group B consisted of RPCNs identified in Phase I of the study. Additional RPCNs were identified through a snowball technique, where participants in the study identified other RPCNs who were also suitable for inclusion in the sample. Questionnaires were sent to the Group B sample at the same time as the Time 3 survey was conducted with Group A. Group B data were used as a comparison with data collected from RPCNs in Group A, the group who had attended the workshops. Differences between the groups were tested for, to ascertain if attendance at the palliative care educator workshops caused a statistically significant difference in the levels of burnout, job satisfaction, professional isolation and intention to remain in

palliative care reported by the Group A sample and the Group B comparison sample. Questionnaires sent to Group B RPCNs were not coded, because there was no need to match sets of data for this group.

Data Analysis Techniques

All statistical procedures used for this study were conducted using the Statistical Package for the Social Sciences (SPSS) Version 10.0 software. Demographic data and responses to Likert-type scales were summarised by calculating response frequencies and percentages for each item. Descriptive statistics, including mean, mode and median, were calculated for demographic variables. Mean scores for items within Likert-type scales were calculated to compare overall rankings. Data generated from this survey were tested to assess the normality of distribution, and parametric statistical tests were used to test the data. Relationships between variables were assessed using Pearson's correlation coefficient. Tests of differences between groups were conducted using t-tests and one way analysis of variance (ANOVA) tests. Statistical significance was assumed at an alpha level of ≥ 0.05 using two-tailed tests.

Information gathered from free response questions were transcribed verbatim. Data were coded using a content analysis technique. Content analysis involved quantifying the frequency with which words, phrases and ideas occurred in the data (Cavanagh, 1997). More importantly, content analysis also required the researcher to search for meaning in communication, by examining the data in the context in which it was communicated (Downe-Wamboldt, 1992). Data were categorised according to the major themes emerging from the data. Categories were then modified or expanded as themes were developed. The categories and themes that emerged were verified by member checks with five key RPCNs, via telephone and email. Checking emerging themes in qualitative studies with participants can enhance the validity of the findings by ensuring that the findings have relevance to participants (Patton, 1990).

Trustworthiness and Validity of the Research Process

Validity of quantitative research is assessed using statistical measures to determine the extent to which an instrument is measuring the construct it was chosen to measure (Polit et al., 2001). The instruments used in this study were checked for content validity as described previously. The reliability of the instruments was also checked using Cronbach's alpha coefficients. Data were tested in the pilot study, Phase I and Phase II, to confirm that the instruments had an acceptable level of internal consistency. Williams (1989) suggests that validating an instrument is an ongoing

process that should never be considered complete. It is acknowledged that further testing will be required before the PIMS and the CPCM can be considered fully validated measurement tools.

Qualitative research is not subject to the checks of validity that govern quantitative research, because the naturalistic style of data collection and analysis cannot be easily measured (Lincoln & Guba, 1985). In the interests of demonstrating that a qualitative study conforms to "good science" Lincoln and Guba suggested four tests of the reliability of qualitative research. These are truth-value, applicability, consistency and neutrality.

Truth-value refers to the credibility of the research. Participants in the research were consulted to be sure that the findings accurately reflected their reality. Hoffart (1991) describes member checks as an important step in ensuring rigor in the research process. Peer debriefing was also used to ensure truth-value of this research. Peer debriefing required the researcher to discuss emerging themes in the data with research and clinical nursing colleagues.

Applicability is demonstrated if the findings of the research are found to have relevance in other settings; good qualitative research presents descriptions and interpretations of the phenomena that readers can relate to their own experiences (Sandelowski, 1986). Again, checks with participants confirm the applicability of the research findings.

To demonstrate consistency the research process must be transparent and auditable. All decision making was documented throughout this project and therefore provided a verifiable audit trail. Rodgers and Cowles (1993) argue that a research audit trail is an essential component of a qualitative research project because it enhances the rigor of the research.

Finally, neutrality demands that the research be free from bias. The researcher was actively involved in the area of rural palliative care at the time this project commenced, in the role of Clinical Nurse Manager of a rural Hospice. Therefore, it is possible that the researcher may have brought her own preconceptions into the research arena. This involvement has been fully disclosed so that readers can form their own judgement about any bias inherent in the research.

Ethical Considerations

When conducting research involving human subjects, it is vital that ethical considerations be taken into account (Polit et al., 2001). A research proposal was submitted to the Edith Cowan University Committee for the Conduct of Ethical Research, and approval to continue the research was granted. In a research study of this design, the major ethical considerations are informed consent, maintaining confidentiality of participants, and management and storage of data.

A letter explaining the purpose of the study and the proposed uses of the data was included with each questionnaire (see Appendix L), and the cover sheet of the questionnaire also had a disclaimer explaining the confidential nature of the questionnaire (see Appendix M). Completing and returning the questionnaire was considered to constitute consent to participate in the research.

Participants in the workshops were given a letter explaining the study prior to completing the first questionnaire administered. A verbal explanation of the research was also provided using a pro forma statement (see Appendix N). All workshop participants were assured that refusal to participate in the survey process would in no way affect their attendance of the workshop. During the workshops the questionnaires were distributed and collected by a participant. The facilitator/researcher left the room to allow the participants to make a choice regarding their participation in this part of the workshop. When receiving the third questionnaire, workshop participants received another copy of the explanation letter, and again consent was assumed if the questionnaire was returned. Questionnaires used for workshop participants were coded to allow matching of data. The list of names and matching codes was stored separately from the completed questionnaire forms and was destroyed immediately after the final questionnaire was posted.

Every attempt has been made to guarantee the anonymity of participants in this study. No names or specific demographic details have been kept that could identify the participants. All identifying data were removed from sections of the data used throughout this thesis. All data collected have been stored in a locked cabinet in the researcher's office. Participant information and data collected were stored separately to ensure that confidentiality was maintained. No identifying details will be released in this or any other document pertaining to this research. Data will be stored for five years and then destroyed.

Participant distress is an ethical issue that requires attention when conducting research with human subjects. This was considered a low risk study, because participants were familiar with discussion about patient care and professional issues. Although participant distress was not anticipated, access to a professional counsellor was available to any participant who felt it was necessary. This option was not required by any participants in this study.

Conclusion

This research project was a two-phase intervention study. Phase I used a descriptive-correlational design to determine the learning and support needs of RPCNs in Western Australia. This information was used to develop an education intervention to assist RPCNs in their professional role. Phase II used a pretest-posttest design, with a posttest comparison group, to determine whether educational interventions would have an impact on RPCNs' levels of confidence in palliative care provision, professional isolation, burnout and job satisfaction, and their intention to leave palliative care. Both qualitative and quantitative research methods were used to collect data that would assist in developing a picture of the current issues in palliative care in rural Western Australia.

CHAPTER FOUR

FINDINGS: PHASE I LEARNING NEEDS ANALYSIS

Introduction

This chapter presents the findings of Phase I of this research project. This phase involved pilot testing an instrument designed to collect data for the project. Then RPCNs in Western Australia were surveyed to ascertain their learning needs in relation to palliative care. Finally, baseline data about issues of concern to RPCNs, in particular burnout and professional isolation, was collected. The results of Phase I were used to determine the interventions most suitable to be offered as part of Phase II of the project, and to serve as baseline data for Phase II of the project, an evaluation of the interventions.

A questionnaire designed to collect information about RPCNs working in Western Australia was used to collect data for Phase I of this project. Demographic information about the respondents was collected, including information relating to their current employment situation and the availability of technologies that may assist in delivering education. Questions regarding the respondents' palliative care learning needs were included, as were tools measuring the support services and methods of providing support that RPCNs favoured. The questionnaire also contained instruments designed to measure the issues of burnout, professional isolation, job satisfaction and intention to remain in palliative care. Several free-response questions were included to capture issues not included in the questionnaire.

Phase I of this study was designed to answer the following research questions:

- What education and support needs did RPCNs identify as being of most importance?
- What issues in professional practice were identified by RPCNs as requiring attention?
- How/where did RPCNs access education and support related to palliative care?
- What were the preferred methods of service delivery to meet the identified needs of RPCNs?

Pilot Testing

The main aim of the pilot study was to test the questionnaire, to ensure that any errors were identified and to verify that the language and content were appropriate for the target population. The pilot test was also useful in determining the internal consistency of the tools developed for this study. The tools used for collecting data in the pilot test were:

- Demographic profile
- Learning needs assessment
- CPCM
- PIMS
- MBI
- Pilot test evaluation.

The tools designed to survey RPCNs were pilot tested in January and February 2000. A convenience sample of 20 nurses was used, 10 from rural areas and 10 urban based nurses. Of the questionnaires completed, 17 were suitable to use as a pilot test sample. The three questionnaires remaining had not been completed sufficiently to be of use when calculating statistical scores; however, the comments made in these three questionnaires about why they were incomplete were helpful in adapting the questionnaire prior to its use in the main Phase I study. Descriptive statistics were generated using the pilot test data. Scores for the PIMS, CPCM and MBI were calculated, and cross-tabulation charts were used to summarise differences between rural and urban nurses. Reliability estimates using alpha coefficients were calculated for the PIMS and CPCM instruments that were developed for this project. No other statistical procedures were performed because the small sample size made comparisons between groups difficult. Information from the palliative care needs assessment was not collated because a number of the respondents to the pilot test were based in urban centres, and therefore the results would not be of relevance to the study.

Reliability Testing of Questionnaire

Preliminary testing of the reliability of the PIMS and CPCM tools was conducted with data collected from the pilot test. Although the sample size used in the pilot test was small, the reliability coefficients obtained were helpful in determining if any items on the scales were not appropriate. Cronbach's alpha coefficient was calculated for the PIMS, and for the three subscales within it (see Table 2). Reliability estimates for professional isolation subscales were between 0.65 and 0.89, indicating that each subscale achieved close to an acceptable reliability estimate (Nunnally & Bernstein, 1994). Testing of the PIMS to assess the reliability of the instrument occurred again in Phase I and Phase II. The standardised Cronbach's alpha coefficient calculated for the CPCM was 0.96. This was considered acceptable and no changes were made to the tool.

Table 2: Reliability Estimates for Professional Isolation Measures (N= 15)

| Scale | Standardised item alpha coefficient | Number of items |
|-----------------------------|--|-----------------|
| PIMS | 0.84 | 12 |
| Isolation subscale | 0.65 | 8 |
| Job satisfaction subscale | 0.68 | 4 |
| Intention to leave subscale | 0.89 | 4 |

Demographic Profile of the Pilot Study Sample

The respondents to the pilot study were all registered nurses working in palliative care, with the exception of one Division 2 enrolled nurse who was involved in aged care and who had some palliative care background. Of the 17 palliative care nurses surveyed; eight were based in rural areas, and nine in urban Perth. Sixteen respondents were female and one was male. The demographic details of the respondents are presented in Table 3. Three questionnaires did not have sufficient information to be included in the pilot study analysis.

Table 3: Frequency Distribution of Demographic Characteristics of the Pilot Test Sample

| Demographic Variables | Categories | Frequency |
|---|-----------------------------|-----------|
| Age (years) (n= 11) | < 35 | 3 |
| | 36-45 | 4 |
| | 46-55 | 3 |
| | 56-65 | 1 |
| | missing | 6 |
| Years in nursing (n= 17) | < 10 | 5 |
| | 11-20 | 5 |
| | > 20 | 7 |
| Years worked in palliative care setting (n= 17) | 0-5 | 3 |
| | 6-10 | 5 |
| | 11-15 | 3 |
| | > 15 | 5 |
| Highest nursing qualification achieved (n= 17) | Hospital based diploma | 5 |
| | Undergraduate degree | 2 |
| | Post graduate qualification | 10 |
| Employment hours (n= 17) | Full-time | 11 |
| | Part-time/casual | 6 |
| Location (n= 17) | Rural | 8 |
| | Urban | 9 |

Professional Isolation in the Pilot Test Sample

Professional isolation scores were calculated for the pilot study respondents by summing the scores of the 14 items in the PIMS. PIMS scores ranged from 12 to 62 out of a possible score of 84. The mean PIMS score was 28.33, with a standard deviation (SD) of 13.31. Higher scores indicated a higher level of professional isolation. Scores were also calculated for each of the three subscales by summing the scores of the relevant items. These scores are presented in Table 4. For the Isolation and Intention to Leave Subscale scores, a higher score indicated a high level of isolation and a strong

intention to leave current position. High scores on the Job Satisfaction Subscale indicated less job satisfaction.

Table 4: Professional Isolation Scores of the Pilot Study Sample (N= 15)

| PIMS subscales | Total possible | Minimum score | Maximum score | M | SD |
|--------------------------|-----------------------|----------------------|----------------------|----------|-----------|
| Isolation score | 48 | 12 | 36 | 20.00 | 6.88 |
| Job satisfaction score | 18 | 0 | 11 | 3.88 | 3.61 |
| Intention to leave score | 18 | 0 | 17 | 5.00 | 5.77 |

Burnout Scores for the Pilot Test Sample

Scores for the three subscales of the MBI: EE, PA and DP, were calculated for each respondent. Scores were coded as low, average or high using the cut-off points determined by Maslach and Jackson (1986). More rural respondents had high scores on the EE subscale than urban nurses; however, rural nurses also appeared to have higher PA scores than nurses based in urban areas. All respondents except one were categorised as having low levels of DP. The scores are presented in Table 5. Significance testing for differences between groups according to location was not undertaken due to the small sample for this pilot test.

Confidence with Palliative Care Provision in the Pilot Test Sample

Scores related to confidence with palliative care provision were also calculated. A total confidence score was calculated by summing the scores of each item of the CPCM together to give a score out of a maximum 48 points. Scores ranged from 25 to 44, with a mean score of 33.81 (SD= 5.69). Respondents showed most confidence in providing pain and symptom management, and were less confident when providing spiritual care or when caring for people of another culture. Rural nurses appeared to have lower confidence scores than their urban counterparts (See Table 6).

Table 5: Cross Tabulation of Burnout Scores for Rural and Urban Palliative Care Nurses

| | | Emotional Exhaustion Score | | | TOTAL |
|----------|-------|-------------------------------|---------|------|-------|
| | | Low | Average | High | |
| Location | Rural | 1 | 4 | 3 | 8 |
| | Urban | 8 | 1 | 0 | 9 |
| | TOTAL | 9 | 5 | 3 | 17 |
| | | Depersonalisation Score | | | |
| | | Low | Average | High | |
| Location | Rural | 7 | 0 | 1 | 8 |
| | Urban | 8 | 1 | 0 | 9 |
| | TOTAL | 15 | 1 | 1 | 17 |
| | | Personal Accomplishment Score | | | |
| | | Low | Average | High | |
| Location | Rural | 2 | 5 | 1 | 8 |
| | Urban | 5 | 4 | 0 | 9 |
| | TOTAL | 7 | 9 | 2 | 17 |

Table 6: Cross Tabulation of Frequency of Palliative Care Confidence Scores for Rural and Urban Palliative Care Nurses

| | | CPCM score frequency | | |
|----------|-------|----------------------|------|-------|
| | | Moderate | High | Total |
| Location | Rural | 5 | 3 | 8 |
| | Urban | 3 | 5 | 8 |
| | Total | 8 | 8 | 16 |

The pilot test sample scores calculated for the PIMS, CPCM and MBI suggest that there are some differences between rural and urban nurses in terms of professional isolation, confidence in palliative care provision and burnout scores. Although the sample is not large enough to test for statistically significant differences among the groups according to these variables, these differences indicate that the variables being tested may be of particular relevance to RPCNs.

Content Validity of the Questionnaire

An evaluation form was added to the pilot questionnaire to gather information about the time taken to complete the questionnaire and to give the respondents an opportunity to make suggestions about ways in which the questionnaire could be improved. The time taken to complete the questionnaire ranged between five minutes and 35 minutes, with a mean time of 18 minutes for completion. This was deemed an acceptable time range and the questionnaire was not shortened in any way.

In total 27 issues were raised by respondents on the pilot test evaluation forms. The comments were about nine areas of the questionnaire. Changes were made to seven areas of the questionnaire in accordance with suggestions (see Table 7). Two suggestions were not acted upon. These were: a suggestion that respondents be asked to indicate what they do to relieve stress and a comment that items in the learning needs assessment needed further explanation. The first suggestion was considered to fall outside the aims of the study and the second did not appear warranted when reviewed.

In summary, the pilot test of the questionnaire designed for use in Phase I of this study determined the following:

- The reliability coefficients of the previously untested PIMS and CPCM tools were above or close to the acceptable 0.70 level
- The PIMS, CPCM and MBI appeared to be measuring constructs of particular relevance to rural nurses
- Minor changes to the questionnaire were necessary to make it easier for respondents to complete.

Table 7: Changes Made to the Questionnaire Following the Pilot Test

| Suggestion | Response Frequency | Action |
|--|--------------------|---|
| Question re. Nursing qualifications does not have clear response options | 4 | Qualified meaning of undergraduate degree (eg. Bachelor) and postgraduate degree (eg. Masters/PhD) |
| Response options for projected frequency of support network usage not comprehensive | 3 | Added response option <i>fortnightly</i> |
| Instructions for tools not clear | 5 | Instructions changed to read <i>please circle...</i> |
| Word anchors for MBI and PIMS confusing; difficult to quantify concepts to times provided eg. Once a month or less, a few times a week etc | 10 | Word anchors changed to never (0), <i>sometimes</i> (3) and <i>always</i> (6) |
| Separate comments page made questionnaire completion disjointed | 2 | Free response questions integrated into the questionnaire in relevant place (i.e. questions about difficulties in palliative care included with CPCM) |
| Suggestion made that it may be helpful to ascertain where support is currently sought | 1 | Question on current professional supports included |

Phase I: Conducting a Learning Needs Assessment

A questionnaire was sent to 79 RPCNs to collect data about their experiences working in a rural area. Instruments that measured burnout, professional isolation and confidence in providing palliative care were included in the survey. Descriptive statistics were generated from the data collected throughout Phase I.

Results from Phase I were tested for normality using a Kolmogorov-Smirnov test. Ten of the 12 numerical variables tested were normally distributed; therefore, parametric statistical tests were used throughout the Phase I analysis. The two variables that were not normally distributed were the number of palliative care patients cared for per year and the intention to leave subscale scores. Both of these scores were positively skewed, with scores clustering to the left, or lower values. Pearson's correlation coefficient (r) was used to describe the relationships among variables and one-way analysis of variance (ANOVA) was used to test for differences between groups.

Reliability estimates were checked for the PIMS, CPCM and MBI using Cronbach's alpha coefficient. The information gathered in Phase I was used to assist in planning and implementing the interventions that were developed as part of Phase II, as well as guiding the design of Phase II of the project, which examined the impact of the interventions.

Survey Implementation

The questionnaire was posted to 79 RPCNs in Western Australia in June 2000. This number represents all of the RPCNs that were identified by the researcher at the time the survey was being conducted. A total of 46 questionnaires were returned (58.23%). However, one was not included because the respondent was a care aide/nursing assistant with no formal nursing qualifications. Therefore the final response rate was calculated as 57%. All respondents were female nurses, 42 were registered nurses and the remaining three were enrolled nurses.

Demographic Details of Respondents

Demographic details of respondents were analysed using descriptive statistics. A demographic profile of the Phase I sample of RPCNs is presented in Table 8.

The ages of respondents ranged from 28 to 63 years ($n = 42$). The mean age was 47 years ($SD = 8.15$). The respondents to this survey had been working as nurses for between eight and 36 years, with a mean of 20 years ($SD = 7.1$). A total of 80% of the

respondents (n= 36) had completed a hospital-based diploma as their highest nursing qualification. Three respondents indicated they had completed a course of study in palliative care and five respondents had completed postgraduate studies in other areas such as midwifery. The postgraduate studies mentioned by respondents do not appear to have been at university level, with only three respondents indicating a postgraduate diploma as their highest nursing qualification. It seems likely that the postgraduate studies mentioned include certificate and accredited courses that confer clinical specialist status on completion.

Table 8: Demographic Characteristics of the Phase I Sample

| Demographic Variables | Categories | Frequency | % |
|---|-----------------------------|-----------|------|
| Age (years) (n= 45) | < 35 | 3 | 6.6 |
| | 36-45 | 15 | 33.0 |
| | 46-55 | 19 | 41.8 |
| | 56-65 | 5 | 11.0 |
| | missing | 3 | 6.6 |
| Years in nursing (n= 45) | < 10 | 2 | 4.4 |
| | 11-20 | 23 | 51.2 |
| | > 20 | 20 | 44.4 |
| Highest nursing qualification achieved (n= 45) | Hospital based diploma | 36 | 80 |
| | Undergraduate degree | 6 | 13.3 |
| | Post graduate qualification | 3 | 6.7 |
| Employment hours (n= 45) | Full-time | 9 | 20.0 |
| | Part-time/casual | 35 | 77.8 |
| | Voluntary | 1 | 2.2 |
| Type of health service reported as main place of employment (n= 45) | General hospital | 9 | 20.0 |
| | Community nursing service | 18 | 40.0 |
| | Inpatient palliative care | 7 | 15.6 |
| | Community palliative care | 11 | 24.4 |

The majority of respondents (62%) worked part time in nursing. It is unclear from this survey if part time employment was the choice of respondents or whether this result reflects the availability of employment in rural areas. Most of the respondents to

this survey (60%) were working in a general health service. Only 40% of respondents were working in a specialist palliative care service.

Palliative Care Role

Information was requested about the respondent's palliative care role. Questions were asked about the length of time RPCNs had worked in palliative care, proportion of work time spent delivering palliative care and number of palliative care patients cared for per year (see Table 9). The RPCNs that responded to this questionnaire reported a wide range of experience in palliative care. The number of years of experience in palliative care that were reported ranged from 1 to 28 years, with a mean of 8.7 years (SD= 5.59). More than half of all respondents spent less than 50% of their time at work involved in palliative care, suggesting that many RPCNs have to combine their palliative care duties with other nursing work. Respondents were asked to indicate approximately how many palliative care patients they cared for in a year. The responses ranged from 3 to 100 patients per year, with a mean of 34.0 (SD= 33.40) and a median of 20 patients per year.

Geographical Location

The geographical location of respondents is pictured in Figure 3. More populated coastal areas, with a higher representation of older residents (e.g. South West, Great Southern) may be expected to have a higher number of nurses working in palliative care than more sparsely populated areas (e.g. Pilbarra, Kimberley) where the average age of residents is much younger, reflecting the mining and pastoral nature of the communities (ABS, 2003).

Table 9: Frequency and Percentage Distribution of Variables Describing Palliative Care Nurse Role

| Variable | Categories | Frequency | % |
|--|--------------------------|-----------|------|
| Years worked in palliative care setting (n= 45) | 0-5 | 16 | 35.2 |
| | 6-10 | 14 | 30.8 |
| | 11-15 | 11 | 24.2 |
| | > 15 | 3 | 6.6 |
| | missing | 1 | 2.2 |
| Percentage of work time spent delivering palliative care (n= 45) | 0-24% | 17 | 37.8 |
| | 25-49% | 7 | 15.6 |
| | 50-74% | 10 | 22.2 |
| | 75-99% | 4 | 8.9 |
| | 100% | 6 | 13.3 |
| | missing | 1 | 2.2 |
| Number of palliative care patients cared for per year (n= 45) | 0-5 | 9 | 19.8 |
| | 6-10 | 7 | 15.4 |
| | 11-20 | 6 | 13.2 |
| | 21-50 | 9 | 19.8 |
| | 51-100 | 12 | 26.4 |
| | missing | 2 | 4.4 |
| Area of postgraduate study (n= 44) | Palliative care/oncology | 3 | 6.8 |
| | Other | 5 | 11.4 |
| | None | 36 | 81.8 |

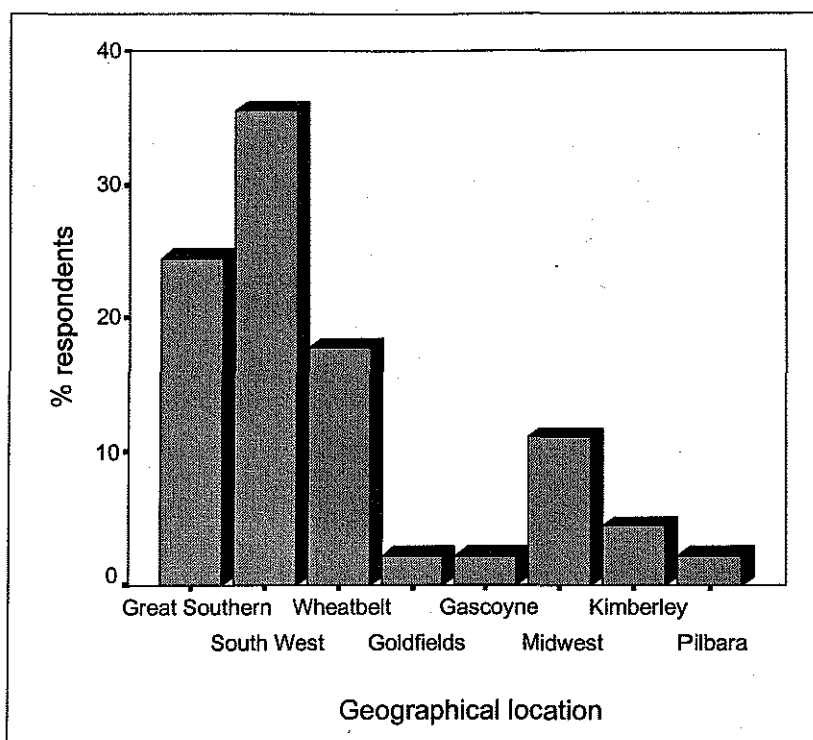


Figure 3: Distribution of Phase I Respondents According to Geographical Location of Workplace (n= 45)

In summary, although there was a wide variation in demographic details amongst the sample of RPCNs who participated in Phase I, a typical profile could be identified. The profile of RPCNs in WA in this phase of the study indicated that RPCNs were generally 40 years of age or older, living in areas of rural WA with higher population density, particularly in the south-west of the state, had had at least 10 years of experience in nursing and at least five years in palliative care, worked part time and spent only a proportion of their total time at work providing palliative care. This emerging profile was useful in planning an intervention that would be appropriate for this professional group.

Assessing the Learning Needs of RPCNs in Western Australia

The purpose of Phase I of this research project was to gather information about the education and support needs of RPCNs, to ensure that the intervention developed in Phase II of the project would adequately meet the needs of this population. Information was sought regarding the areas of palliative care practice about which RPCNs would like to receive further education, and methods of delivering information that would be most beneficial to the respondents. Information was sought about issues in professional practice that were considered difficult, or issues with which RPCNs felt they needed more assistance. Data were also gathered about sources of support for RPCNs, so that

information about informal support networks was available to guide the development of interventions. The respondents' level of confidence in providing palliative care was measured to provide baseline data so that focus of the Phase II interventions was appropriate and would cover areas that RPCNs felt less confident about.

Instrument Reliability

Several instruments were developed for the purpose of collecting data for this research. Reliability testing during the pilot stage of this project indicated that all instruments had an acceptable level of reliability determined using Cronbach's alpha coefficient. However, the small sample size used for the pilot test made it prudent to retest the reliability of the instruments using a larger sample. All but one of the reliability coefficients met the criterion of, or were close to being, greater than 0.70 (see Table 10).

Table 10: Reliability Estimates for Instruments Used in Phase I

| Instrument | Reliability coefficient Alpha | Number of items |
|---|----------------------------------|-----------------|
| PIMS | 0.86 | 12 |
| Isolation subscale (PIMS) | 0.79 | 8 |
| Job satisfaction subscale (PIMS) | 0.74 | 4 |
| Intention to leave position subscale (PIMS) | 0.88 | 4 |
| CPCM | 0.88 | 12 |
| Emotional exhaustion subscale (MBI) | 0.90 *0.90 | 9 |
| Depersonalisation subscale (MBI) | 0.62 *0.79 | 5 |
| Personal accomplishment subscale (MBI) | 0.75 *0.71 | 8 |

* Alpha coefficients reported by Maslach & Jackson (1986).

Palliative Care Learning Needs

RPCNs were asked to rate their interest in 16 palliative care education topics between zero (*no interest*) and five (*very interested*). For ease of planning future interventions, topics were grouped into four categories; physical care, psychosocial/spiritual care, administrative issues and palliative care issues. The most popular learning topics were those related to providing physical care such as pain and symptom management and providing emergency care for palliative care patients. The least popular topic was philosophies and principles of palliative care. However, all learning topics had a mean score of at least 3, suggesting that all topics were of some interest to respondents. Table 11 shows the results.

A free response question was included to gather information about any other education requirements of RPCNs. A total of 10 respondents listed eight other topics that they wished to learn about, four of which were not included in the preceding list of learning needs. These topics were: exercise for palliative care patients, counselling skills, pharmacology in palliative care and providing volunteer education. Other responses to short answer questions included eight requests for education being provided on a regional basis, four requests for provision of continual updates to assist in maintaining confidence and competence when providing palliative care, and three requests for assistance to improve access to palliative care education for rural providers.

Delivering a Service to RPCNs

Respondents were asked whether they required more access to services that could provide information and help with providing palliative care. More than 72% (n=31) indicated that they would like more help providing palliative care. RPCNs were asked to provide details of where they currently got information and support to assist in their palliative care practice. This information was sought to examine current levels of formal and informal support available to RPCNs, and to examine the possibility of strengthening these links to improve the support available. A total of 41 respondents gave 106 responses, with respondents identifying as many as six different places that they could access support and information (see Table 12). The most common source of support was palliative care services in Perth, with many respondents naming specific hospice units or palliative care specialists by name. Other commonly used resources included local palliative care services/staff and local medical practitioners. There appears to be a preference for personal contact when information and support is

required – respondents were far less likely to access impersonal sources of information such as professional literature or the Internet when assistance was required.

Table 11: Palliative Care Learning Needs as Ranked by RPCNs (n= 45)

| Rank | Topic | Category | M | SD |
|------|-----------------------------|-----------------------------|------|------|
| 1 | Symptom management | Physical care | 4.52 | 0.82 |
| 2 | Palliative care emergencies | Physical care | 4.46 | 0.87 |
| 3 | Pain management | Physical care | 4.40 | 0.91 |
| 4 | Bereavement care | Psychosocial/spiritual care | 4.27 | 1.10 |
| 5 | Communication | Psychosocial/spiritual care | 4.23 | 1.18 |
| 6 | Complementary therapies | Physical care | 4.22 | 0.95 |
| 7 | Ethical/legal issues | Palliative care issues | 4.18 | 1.08 |
| 8 | Funding | Administration | 4.11 | 1.26 |
| 9 | Multicultural care | Psychosocial/spiritual care | 4.09 | 1.09 |
| | Quality/standards | Administration | 4.09 | 1.07 |
| 10 | Stress management/self care | Palliative care issues | 4.04 | 1.12 |
| 11 | Management | Administration | 4.02 | 1.10 |
| 12 | Spiritual care | Psychosocial/spiritual care | 4.00 | 1.34 |
| 13 | Team work/team building | Palliative care issues | 3.95 | 1.33 |
| 14 | Programme evaluation | Administration | 3.81 | 1.14 |
| 15 | Philosophies/principles | Palliative care issues | 3.17 | 1.71 |

Table 12: Frequency and Percentage Distribution of Responses Regarding Current Sources of Support and Information Accessed by RPCNs (n= 41)

| Source of support | Frequency | % |
|--|------------|------------|
| Perth based palliative care services | 43 | 40.5 |
| Local palliative care services | 25 | 23.6 |
| Local medical practitioner | 17 | 16.0 |
| Palliative care books/journals | 10 | 9.5 |
| Perth based oncology services | 7 | 6.7 |
| Education opportunities (conferences/lectures) | 4 | 3.7 |
| TOTAL | 106 | 100 |

Determining Type of Service Required

Information was sought regarding the most appropriate way to provide support and information to RPCNs, taking into account the geographical isolation of many of these nurses. Information was also sought about what type of service was required, the best possible ways to disseminate information and the types of technology available that could be utilised to facilitate providing education to geographically isolated RPCNs.

To assist with determining how to best meet the information and support needs of RPCNs, respondents were asked to rate five possible services that could be provided, using a Likert-type scale ranging from zero, *not helpful at all*, to five, *very helpful*. The services offered were further education, access to palliative care consultants and specialists, networking opportunities with other palliative care providers, debriefing and access to clinical information such as books and professional journals. The most favoured possibilities were having access to clinical information and access to palliative care specialists. Least favoured was having opportunities to debrief after a stressful incident. However, all five potential services had a mean score of at least 4.3 out of a possible 5 points, indicating that all suggested services would be welcomed by RPCNs.

A free response question in this section of the questionnaire asked respondents if there were any other ways that they would like to receive information or assistance with palliative care. A total of 15 responses were received from 11 respondents, with several

of these repeating options offered in the fixed response section of the questionnaire (see Table 13). The majority of the responses concerned the need to provide education and support on a local level. One respondent said:

Study days are useful – BUT NOT IN PERTH – as it is difficult to organise funding, relief workers and time off (emphasis as written by respondent) [RPCN 124].

Table 13: Frequency and Percentage Distribution of Responses Regarding Methods of Providing Assistance (n= 11).

| Methods of assistance suggested | Frequency | % |
|--|-----------|------------|
| Local/regional educational opportunities | 8 | 53.4 |
| Education time in urban palliative care centres | 3 | 20.0 |
| Printed updates | 2 | 13.3 |
| Contact with other palliative care professionals | 2 | 13.3 |
| TOTAL | 15 | 100 |

Using Technology to Overcome Distance

Information was sought from respondents about their access to technologies that would be helpful when delivering information to RPCNs working in geographically isolated locations. It was initially hoped that the use of Internet or videoconferencing technology could be considered as a method of providing innovative programmes to rural communities. The use of Internet and videoconferencing technology is attractive in terms of ease of delivery, economy and wide ranging access. Therefore, it was necessary to explore the availability of these technologies amongst the target group. At the time of this survey a large proportion of the sample did not have access to technologies such as the Internet, videoconferencing, teleconferencing or the Westlink community broadcasting television channel either at home or at work. Table 14 shows the proportion of respondents that had access to these technologies.

Table 14: Frequency and Percentage Distribution of Technologies Available to RPCNs (n= 45)

| Technology | Frequency | % |
|--------------------------------|-----------|-----|
| Telephone | 45 | 100 |
| Fax | 43 | 96 |
| Email | 30 | 67 |
| Community broadcasting channel | 26 | 58 |
| Internet | 24 | 53 |
| Teleconferencing | 21 | 47 |
| Videoconferencing | 9 | 21 |

Six possible methods of providing support and information were listed, and respondents were asked to score each from zero, *not useful at all*, to five, *very useful*. Of the six methods of service delivery suggested in the questionnaire, the most popular were those that did not require use of sophisticated technologies: printed newsletters, a telephone help-line and regional palliative care meetings were ranked the highest. Least popular were an interactive website and study time in Perth. Table 15 lists the mean scores for each suggested method of service delivery. All suggested methods had a mean score of 3.5 or above, indicating some interest in any of these methods as a way of receiving information.

Confidence in Palliative Care Provision

The CPCPM was devised to measure the degree of confidence that respondents felt when providing specific aspects of palliative care for their patients. The CPCPM was included in the Phase I learning needs assessment to determine the areas in which RPCNs reported feeling least confident and might therefore be expected to require further education and support. Twelve individual areas of palliative care provision were identified. Respondents were asked to rate how confident they felt in each area, on a six-point scale ranging from *not confident with any cases* (zero) to *confident with all cases* (five). The data were then examined in two ways. Firstly, a mean score was calculated for each aspect of palliative care to determine the areas in which respondents

felt least and most confident. An overall CPCM score was also calculated for each respondent by summing the 12 item scores to give an overall indication of how confident the respondent felt in their ability to provide palliative care.

Table 15: Possible Methods of Service Provision as Ranked by RPCNs (n= 45).

| Rank | Suggested method of service delivery | M | SD |
|------|--------------------------------------|------|------|
| 1 | Regular newsletters | 4.51 | 0.85 |
| 2 | Telephone helpline | 4.39 | 1.15 |
| 3 | Regional palliative care meetings | 4.27 | 1.12 |
| 4 | Telephone conferences | 3.79 | 1.25 |
| 5 | Study days/conferences in Perth | 3.53 | 1.42 |
| 6 | Interactive website | 3.50 | 1.60 |

The scores in the CPCM indicated that respondents felt confident in providing care to their patients in most or all cases that involved physical or psychosocial needs, such as pain and symptom management and communicating with patients and families. Respondents were less confident when a case involved providing care for someone experiencing a palliative care emergency such as haemorrhage or spinal cord compression, when using complementary therapies or when a patient was from another culture. Table 16 shows the CPCM mean scores with each area ranked according to the respondents' level of confidence.

Table 16: Mean Scores of Individual CPCM Items (n= 41)

| Rank | Domain | M | SD |
|------|-----------------------------|------|------|
| 1 | Caring for families | 4.07 | 0.65 |
| | Communication | | 0.72 |
| 2 | Pain management | 3.78 | 0.79 |
| 3 | Psychosocial care | 3.75 | 0.93 |
| 4 | Bereavement care | 3.66 | 0.88 |
| | Spiritual care | | 0.97 |
| 5 | Symptom management | 3.64 | 0.80 |
| 6 | Ethical issues | 3.60 | 0.84 |
| 7 | Management/administration | 3.51 | 0.91 |
| 8 | Multicultural care | 3.27 | 0.97 |
| 9 | Complementary therapies | 3.16 | 0.83 |
| 10 | Palliative care emergencies | 2.75 | 1.25 |

A CPCM score was calculated for each respondent by obtaining the sum of each of the 12 items in the CPCM, allowing a maximum score of 60. The scores ranged from 28 to 56, with a mean score of 42 (SD= 6.71, n= 41). This suggests that respondents felt confident with at least some aspects of their palliative care practice. For ease of reporting, the CPCM scores were collapsed into three categories. Respondents with scores of 36 or below were considered to have low confidence levels, as their average score in each area indicated confidence when working with only some cases. Scores between 37 and 48 were considered to indicate moderate confidence levels, with respondents being on average confident with some or most cases. Scores above 48 were categorised as being high confidence levels, with respondents being confident with most or all cases in all areas of palliative care examined in the CPCM. Figure 4 shows the distribution of respondents' CPCM scores in this survey. More than 90 % of this sample of RPCNs had a moderate or high level of confidence when providing palliative

care for their patients. Further work is required to determine if these cut-off levels require alteration to more accurately reflect confidence ratings.

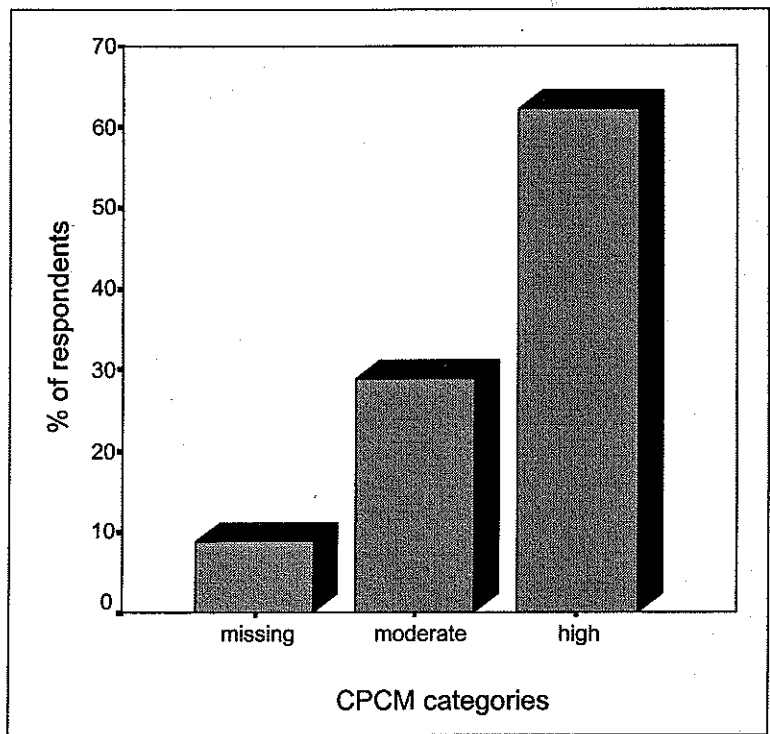


Figure 4: CPCM Scores of Phase I Sample Categorised as Low, Moderate and High (n= 45)

Possible relationships between CPCM scores and demographic characteristics that were measured on a continuous scale were tested using Pearson’s correlation coefficient. These included age, years of experience in nursing, length of time working in palliative care and number of palliative care patients cared for per year. The correlations are presented in Table 17. The results indicates that RPCNs who have more experience in palliative care and who provide palliative care to a larger number of patients per year are more confident in their practice than nurses who are less experienced and provide palliative care only occasionally.

Table 17: Correlations Between CPCM Scores and Demographic Variables

| Demographic variable | r | p |
|---|----------|----------|
| Age (years) | -0.06 | 0.73 |
| Years worked in nursing profession | 0.11 | 0.05 |
| Experience working in palliative care (years) | 0.31 | 0.05 |
| No of palliative care patients cared for per year | 0.45 | 0.004 |

A one-way ANOVA was used to explore differences in CPCM scores according to demographic variables (educational qualifications, postgraduate study area, employment status, location, proportion of work time spent providing palliative care and type of health service). Statistically significant differences were found between CPCM scores for three variables; educational qualifications, area of postgraduate study and employment status (see Table 18). These findings indicate that RPCNs with a university qualification, those who have completed postgraduate study related to palliative care and those who have working full-time are most likely to have high CPCM scores. The effect size for each of these variables, calculated using eta-squared, was greater than 0.14, and was therefore considered large.

Conclusions of the Learning Needs Assessment

In summary, a learning needs assessment was conducted to gain a clearer understanding of the needs of RPCNs in WA prior to developing an intervention in Phase II of this project. The findings of the needs assessment suggest that RPCNs are interested in accessing palliative care education. RPCNs expressed a preference for clinically based education that provided information about caring for the physical needs of patients. Respondents preferred locally based education, and welcomed opportunities to meet and exchange ideas with rural colleagues.

Table 18: Differences Between CPCM Scores According to Categorical Demographic Variables

| Independent variable | F | df | P | Eta ² |
|---|------|-------|------|------------------|
| Educational qualification | 3.34 | 2, 38 | 0.05 | 0.15 |
| Area of post-graduate study | 3.53 | 2, 37 | 0.03 | 0.17 |
| Employment status | 9.17 | 3, 37 | 0.00 | 0.43 |
| Proportion of time spent in palliative care | 2.55 | 4, 35 | 0.56 | 0.22 |
| Geographical location | 0.88 | 7, 33 | 0.53 | 0.19 |
| Type of health service | 1.11 | 3, 37 | 0.35 | 0.09 |

Professional Isolation and Burnout in a Rural Palliative Care Nursing

This research project aimed to examine the issues of burnout, professional isolation, job satisfaction and intention to leave palliative care, and to determine whether interventions had an impact on measures of these issues in rural practice. As part of Phase I, data were collected regarding each of these issues using the MBI and PIMS. The data were then analysed to provide some baseline details about the levels of burnout and professional isolation in this group of RPCNs. Tests were also conducted to determine if there were any specific variables that may indicate RPCNs who may be at greater risk of burnout or professional isolation.

Professional Isolation in RPCNs

The PIMS has 14 items relating to professional isolation, each scored between zero and six using a Likert-type scale. The sum of the responses to these 14 questions is used as an indicator of overall feelings of professional isolation. Scores are also calculated for each of the subscales in the PIMS: the Isolation Subscale, the Job Satisfaction Subscale and the Intention to Leave Subscale. Each of these subscales will be discussed separately.

The PIMS score was calculated out of a possible score of 84. The scores of respondents ranged between 16 and 62, with a mean of 35.60 (SD= 11.53, n= 42). For clarity the scores were collapsed into three categories, low, moderate and high. These categories represent three equal divisions of the total possible PIMS score. Scores in the highest third (56-84) are classed as a high level of professional isolation, those in the middle third (28-55) are labelled moderate and low scores (0-27) are considered to indicate low levels of professional isolation. The PIMS scores are illustrated in Figure 5. More than 64% (n= 27) of RPCNs who responded to this questionnaire reported moderate levels of professional isolation. Only one respondent had a PIMS score that was classified as high.

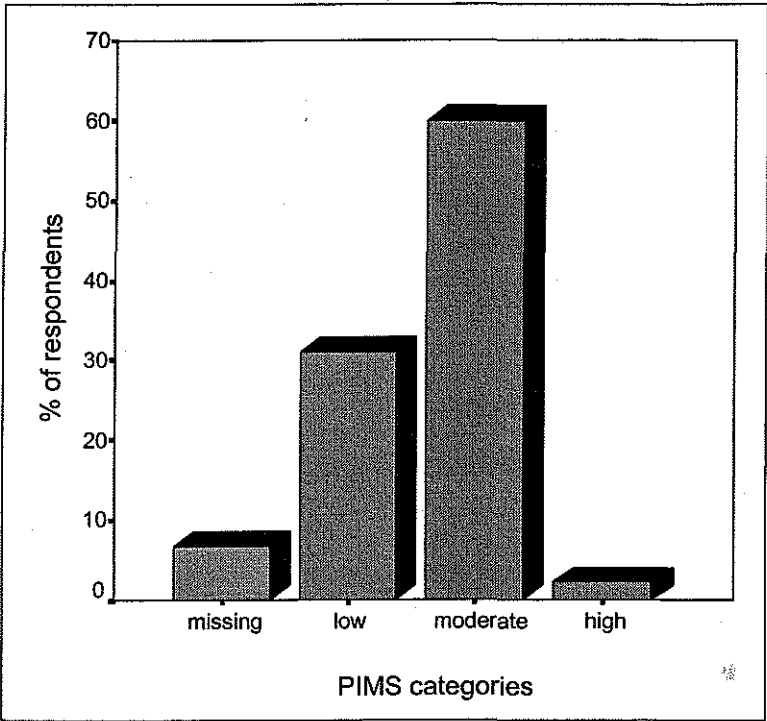


Figure 5: PIMS Scores of Phase I Sample Categorised as Low, Moderate or High (n= 45)

Pearson’s correlation coefficient was used to determine whether there were any correlations between professional isolation and demographic characteristics measured on a continuous scale (i.e. age, years experience in nursing, years worked in palliative care, number of palliative care patients per year). The correlations were low, with the value of r ranging from -0.03 to 0.09. The only demographic characteristic that had a statistically significant correlation with the PIMS score was age, with younger RPCNs more likely to have high PIMS scores; $r = -0.43$, $p = 0.006$, $n = 39$.

A one-way ANOVA was used to test for differences between groups in variables measured categorically (educational qualifications, area of post-graduate study, employment status, location, proportion of work time spent providing palliative care and type of health service). There was a statistically significant difference in PIMS scores for both employment status, $F(3,38) = 3.0, p = 0.04$, and area of post-graduate study, $F(2,38) = 3.56, p = 0.038$. These findings suggest that RPCNs working part time are more likely to experience professional isolation, and that RPCNs who have completed study in palliative care are less likely to experience professional isolation.

Isolation subscale.

The Isolation Subscale has eight questions that relate directly to issues of professional isolation. Summing the scores of the eight items generates an isolation score with a maximum score of 48. Scores ranged from 12 to 36, with a mean score of 25 ($SD = 6.77, n = 42$). Scores were collapsed into three categories. Figure 6 shows the percentage of isolation scores in the low, moderate and high isolation categories. Nearly 17% ($n = 7$) of respondents had isolation scores that were considered high, 12% ($n = 5$) were categorised as low, and the majority of RPCNs had a moderate isolation score.

Relationships between isolation subscale scores and demographic characteristics were also examined. There was a statistically significant large negative correlation between age and isolation subscale score ($r = -0.55, p = 0.000, n = 39$). Younger RPCNs were more likely to have a high isolation score than older RPCNs. No differences between groups were noted when comparing categorical variables such as qualifications, employment status, geographic location, proportion of work time spent providing palliative care and type of health service.

Intention to leave subscale.

The intention to leave subscale consists of three items that explore whether RPCNs intend to leave their current position in palliative care. An intention to leave score was generated by summing the scores of the three items, making a possible total score of 18. The intention to leave scores ranged from 0 to 15, with a mean score of 4.4 ($SD = 4.42, n = 45$). Figure 7 illustrates the intention to leave scores when categorised as low, moderate or high intention to leave. Only 4 % ($n = 2$) of the respondents were classified as having a high intention to leave, with the majority being categorised as low (65%, $n = 29$) or moderate (31%, $n = 14$) intention to leave palliative care.

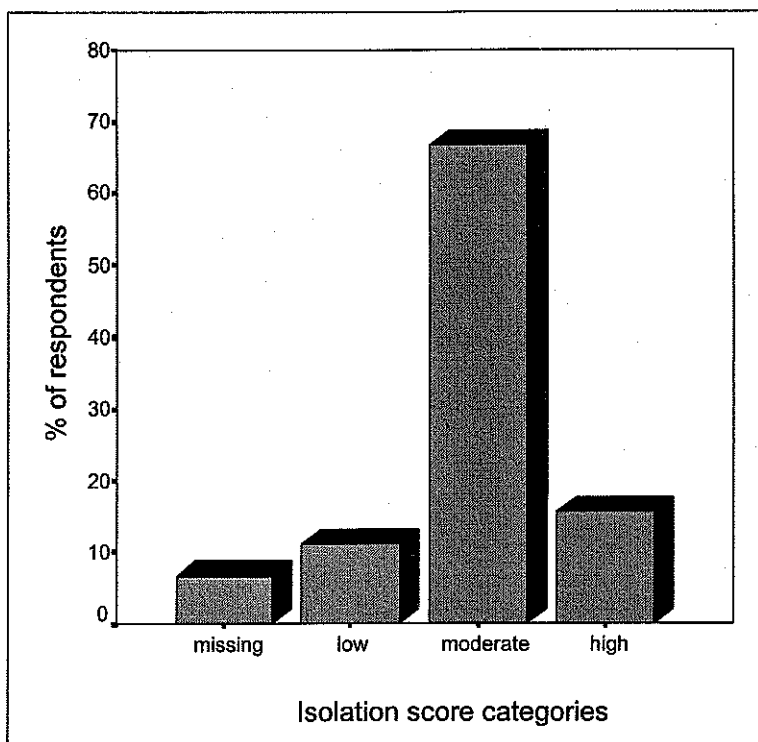


Figure 6: Isolation Scores for Phase I Sample, Categorised as Low, Moderate or High (n= 45)

The RPCNs' intention to leave was examined using both Pearson's r and a one-way ANOVA to see if there were any demographic characteristics that were related to the intention to leave score. No statistically significant relationships were noted.

Job satisfaction subscale.

The three-item Job Satisfaction Subscale was used to determine a job satisfaction score. The three items were summed, making a possible total score of 18. The job satisfaction score is the reverse of the scores for other subscales, in that low scores indicate high job satisfaction and high scores indicate low levels of job satisfaction. The respondents to this questionnaire had a range of scores from zero to 12, with a mean score of six ($SD= 3.14$, $n= 45$). When the scores were categorised as low, moderate or high job satisfaction, 56% of respondents ($n= 25$) were categorised as having high levels of job satisfaction, with the remaining 44% ($n= 20$) reporting moderate levels of job satisfaction. There did not appear to be any demographic characteristics that were related to the respondents' job satisfaction score.

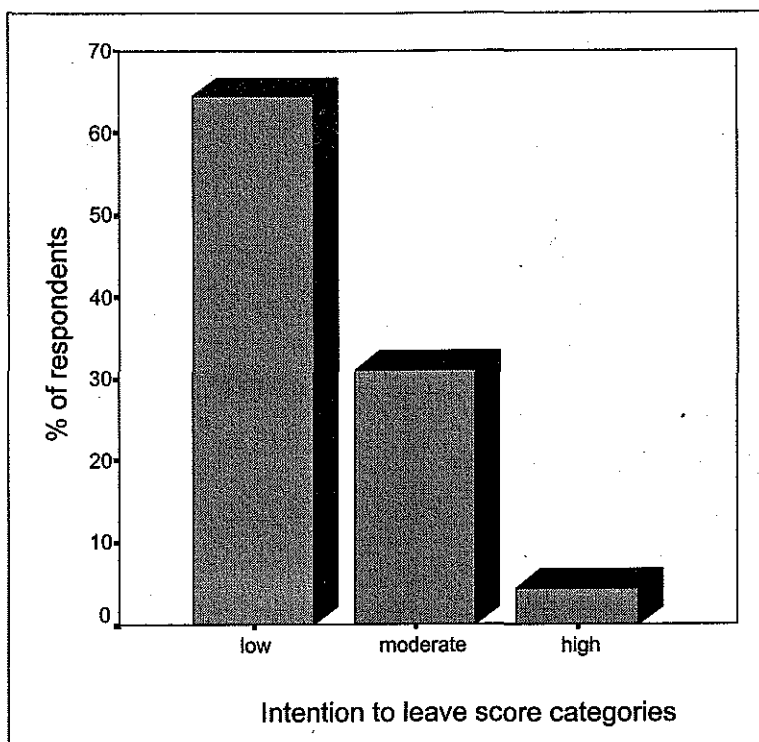


Figure 7: Intention to Leave Scores for Phase I Sample Categorised as Low, Moderate or High (n= 45)

In summary, the results relating to the PIMS suggest that professional isolation may be more common for young nurses, and RPCNs who have completed post-graduate study in palliative care may be less likely to experience professional isolation. RPCNs that work part time may be more likely to experience professional isolation.

Burnout in RPCNs

As part of this study, levels of burnout in the RPCN population were examined using the MBI. Scores for the three subscales of the MBI were categorised as low, moderate or high using the cut-off points determined by Maslach and Jackson (1986) as norms for the medical/nursing professions (see Table 19). Demographic and employment factors that may impact on levels of reported burnout were sought. Relationships between burnout and the issues of professional isolation, job satisfaction and intention to discontinue work in palliative care were also examined.

Table 19: Normative Scores Used to Rank Scores of Subscales of MBI

| Subscale | Categories | Cut-off scores for ranking |
|--|------------|----------------------------|
| Emotional Exhaustion | Low | 0-16 |
| | Moderate | 17-26 |
| | High | 27-54 |
| Depersonalisation | Low | 0-6 |
| | Moderate | 7-12 |
| | High | 13-30 |
| Personal Accomplishment (scored in reverse) | Low | 39-48 |
| | Moderate | 32-38 |
| | High | 0-31 |

Emotional exhaustion.

The EE subscale of the MBI examines the feelings of emotional depletion and inability to relate to patients on an emotional level that is characteristic of burnout sufferers. It is a nine item scale, with each item being scored between 0 (*never*) and 6 (*always*), making the highest possible score 54. Respondents to this questionnaire had EE scores ranging from 5 to 48, with a mean of 19.5 (SD= 10, (n= 44). Using the cut-off points determined by Maslach and Jackson (1986), 25% of the respondents (n= 11) were in the category of high emotional exhaustion, and a further 23% (n= 10) had moderate levels. A total of 52 % (n= 23) reported low levels of EE (see Figure 8).

The PIMS score and the scores of the three PIMS subscales, isolation, job satisfaction and intention to leave, all had a statistically significant correlation with the emotional exhaustion scores (see Table 20 for exact values). RPCNs who reported higher EE levels were also more likely to report high levels of professional isolation, were more likely to have low levels of job satisfaction, and were more likely to report high intention to leave palliative care. No statistically significant relationships were found between EE scores and any demographic characteristics.

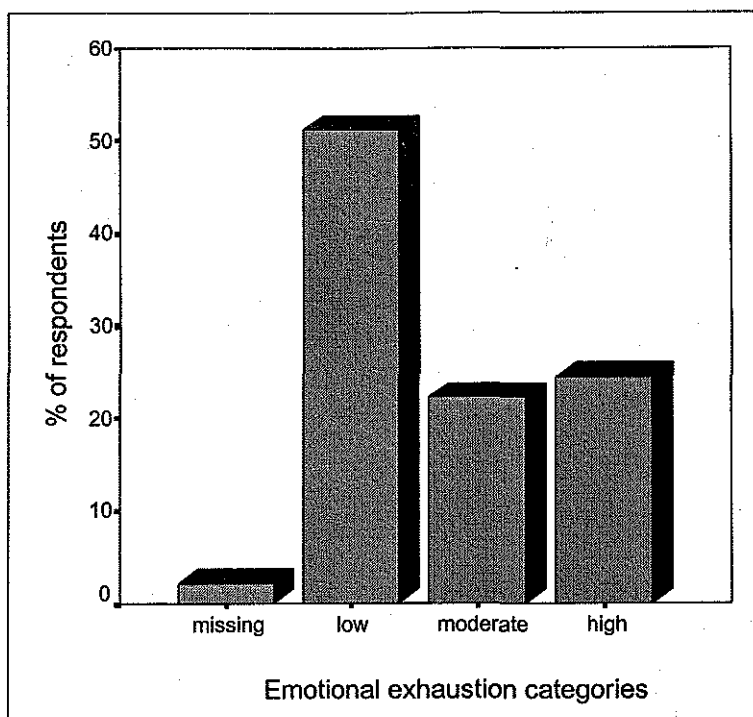


Figure 8: EE Scores for Phase I Sample Categorised as Low, Moderate or High (n= 45)

Table 20: Correlations Between EE Scores and Professional Isolation Scores of RPCNs in Phase I (n= 44)

| Score | r | p |
|--------------------------|------|-------|
| PIMS total | 0.56 | 0.000 |
| Isolation score | 0.35 | 0.024 |
| Intention to leave score | 0.66 | 0.000 |
| Job satisfaction score | 0.40 | 0.007 |

Depersonalisation.

The construct of depersonalisation describes care workers who no longer feel able to relate to their patients. The MBI uses five items to generate a DP score, with a possible total of 30. The RPCNs who participated in this questionnaire had depersonalisation scores that ranged between 0 and 16, with a mean score of 4 (SD= 3.5, n= 44). Figure 9 shows the categorisation of these scores as low, moderate or high, using the MBI normative scores for medical and nursing personnel. The majority of

this sample had low DP scores, with only 27% (n= 12) of this group having moderate or high scores.

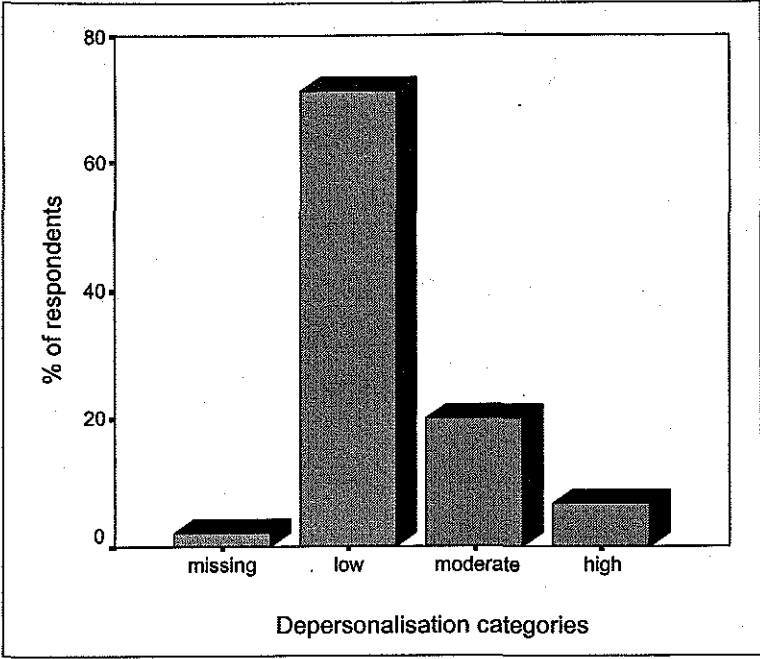


Figure 9: DP Scores for Phase I Sample, Categorised as Low, Moderate and High (n= 45)

The DP scores of the RPCNs were tested for relationships with demographic characteristics to determine whether there were any indicators as to which RPCNs may be most likely to experience this problem. There were no significant findings at the $p < 0.05$ level.

Personal accomplishment.

The third subscale of the MBI explores respondents' feelings of accomplishment in their professional capacity. Negative feelings about work and being overly self-critical are indicators of burnout. The PA scale in the MBI consists of eight items, with a possible score of 48. High scores on this subscale indicate greater feelings of PA; the negative feelings associated with burnout generate lower scores. The PA scores of the RPCNs in this questionnaire ranged from 18 to 46, with a mean of 33.5 (SD= 5.7, n= 44). Figure 10 shows the categorisation of these scores according to the suggested cut off points.

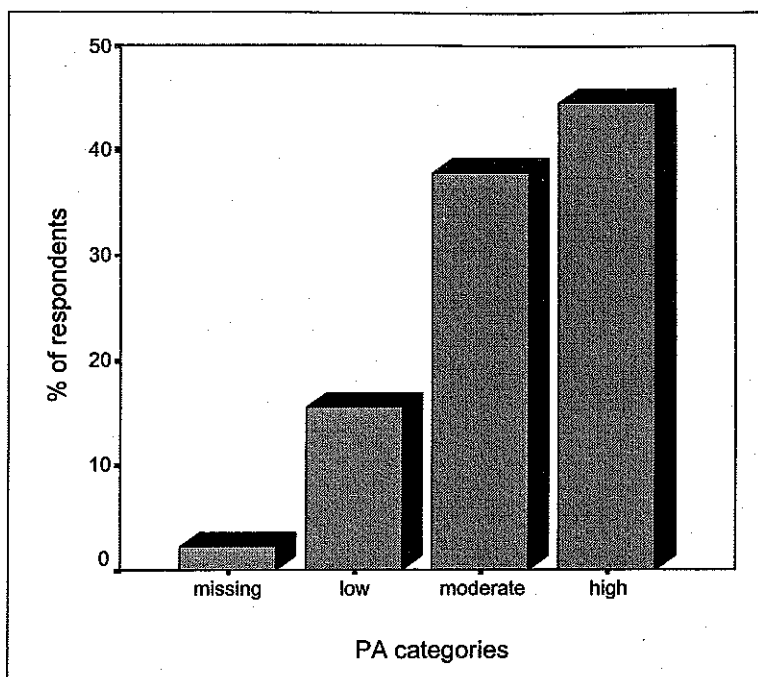


Figure 10: PA Scores for Phase I Sample Categorised as Low, Moderate or High (n= 45)

The PA scores were tested for relationships with other variables in the questionnaire. No statistically significant findings were revealed.

Correlations between the MBI subscale scores were also tested for. There was a moderate positive correlation between EE scores and DP scores, suggesting that as RPCNs experienced higher levels of depersonalisation they also experienced higher levels of emotional exhaustion. Small and non-significant correlations were found between PA and DP scores, and between PA and EE scores.

In summary, the findings relating to the results of the MBI suggest that there may be a relationship between professional isolation and burnout scores, with moderate or strong correlations being reported between the four scores generated from the PIMS and the emotional exhaustion subscale of the MBI. No relationship between demographic characteristics and burnout scores were discovered.

Planning an Intervention to Assist RPCNs in Their Clinical Practice

The results of the learning needs assessment conducted in Phase I indicated that RPCNs had an interest in accessing most aspects of palliative care related education that were offered. In particular, the respondents to the Phase I survey showed interest in pursuing education about topics related to physical care provision, with pain and symptom management and palliative emergency care ranked as the most interesting topics. The preference of respondents was for education delivered in rural areas rather

than in the city, and using a face-to-face format rather than using technologies such as videoconferencing.

The planned intervention had two discrete parts: a full day workshop that focused on adult learning theories and methods of effective education delivery, and also the provision of prepared educational materials on a range of palliative care topics. It was anticipated that with increased knowledge of teaching strategies and appropriate educational materials, RPCNs could easily deliver a range of palliative care education sessions in their local communities.

Designing the Intervention

The palliative care educator workshops were seven hours long, and were aimed at educating senior RPCNs who may be expected to provide education as part of their professional role. A group of five senior RPCNs known to the researcher were approached to discuss possible locations and venues for the workshops, and to determine which RPCNs should be targeted as potential participants.

Determining the locations of the workshops posed some initial difficulties, in that it proved impossible to decide on a venue in the far North West of the state (the Kimberly and Pilbara regions) that would be appropriate as a workshop venue. Towns in this area are sparse, with driving times of up to ten hours between towns. Air travel is limited or non-existent. Therefore, RPCNs attending a one-day workshop face in excess of 20 hours of travel, and would require at least three days absence from work to attend a one-day workshop. RPCNs in the North-West of WA said that attendance at a seminar would not be possible for them unless funding was made available for them to have study time and to pay a locum to provide patient care in their absence. Funding of this magnitude was not available and therefore no workshop was held in the North West area. Travel constraints were also an issue for nurses in the Midwest, where there are many small towns that are geographically distant from the regional centre of Geraldton. Two workshops were planned in this area, in towns nearly 400 kilometres apart. The final locations were chosen for their centrality and ease of access for participants, and also because they had a suitable venue for the workshop (see Appendix J for workshop locations). Only two of the workshops were held in larger regional centres. RPCNs expressed a wish to hold workshops in smaller towns that rarely hosted visiting educators. Participants appreciated not having to travel to larger centres that were familiar. Instead, they had an opportunity to see what other small towns were doing in their palliative care services.

The objectives of the workshops were to:

1. Assist the participants to develop skills as nurse educators
2. Provide participants with information about adult learning theory
3. Familiarise participants with the *Over Handover* package
4. Provide information about recent developments in palliative care provision
5. Promote interaction between RPCNs and promote the development of professional networks.

The workshops focussed on helping participants develop an understanding of ways to provide an informative education session for adult participants. Topics covered included:

- Adult learning theories
- Tips for making public speaking easier
- Ways to enhance a presentation with visual aids
- Dealing with difficult students
- Introducing difficult topics.

RPCNs who attended the first three workshops were sent a pre-reading package that consisted of several papers that provided an overview of adult learning principles. The aim of this was to familiarise participants with the language associated with education provision, and to give them a broad overview of adult learning theory. However, after three workshops the pre-reading packages were discontinued, because less than one third of participants had read the information prior to attending. For the final three workshops the papers were made available as additional reading if participants were interested.

A generic lesson plan was devised for the workshops (See Appendix O). However, each workshop was tailored to the needs of participants; groups of more experienced RPCNs spent more time focussing on learning educator skills, and less experienced groups spent more time focussing on the content of the *Over Handover* packages. Time was also planned to allow for socialising; attendance at a workshop of this kind was unusual for most participants, and offered an opportunity to meet and network with RPCNs from nearby towns. In several locations participants did not know each other, despite practicing in neighbouring towns. It was considered important for

all participants to begin to make links that may be of use to them in their clinical practice. Therefore, tea and lunch breaks were extended, and discussion and sharing of ideas between participants was encouraged in all sessions.

Providing Educational Materials

Mid West Area Health Services in NSW developed a palliative care education package called *Over Handover* in 1996/7. Permission to update and use the *Over Handover* Package was granted by the Mid West Area Health Service. The *Over Handover* Package was made available to all RPCNs who attended the Palliative care educator workshops. The package was designed to provide rural nurses with the materials needed to deliver palliative care education in a rural setting. As such the package also met the aims of this project.

The *Over Handover* package is a series of ten booklets. Each is a stand-alone booklet that contains everything required to provide a one to two hour palliative care education session. The booklets focus on the principles of palliative care, in particular on symptom management and holistic care provision.

Each booklet was designed to be a complete package of educational materials on a single palliative care topic. Each booklet included pre-reading, lecture notes, overhead projection sheets, handouts and evaluation forms. With this resource it was expected that an RPCN would be able to deliver high quality palliative care education when required. Nine of the booklets presented clinical topics relating to palliative care provision, and were aimed at providing education for other nursing staff. The final booklet was designed as a guide to delivering a brief presentation about palliative care to interested community members. McConigley (1998) found that RPCNs were expected to provide information for groups involved in fundraising, and this final booklet gave them a ready prepared presentation that covered all of the major points that were relevant to community groups.

All RPCNs who attended the palliative care educator workshops were given a copy of the *Over Handover* package. As well, some time during the day was devoted to discussing how best to use the package. More time was spent discussing specific parts of the package that seemed to need further information, such as analgesic drugs that were included on the list of not recommended substances, but that several RPCNs had seen prescribed on a regular basis. This informal discussion time gave participants an opportunity to debate issues and to share knowledge and ideas.

Conclusion

Phase I of this study aimed to collect data that would assist in developing a clearer picture of the support and information needs of RPCNs. Baseline data were collected about the levels of burnout and professional isolation experienced by West Australian RPCNs and preliminary testing of data was conducted to identify any variables that may serve as indicators of RPCNs at higher risk of burnout or professional isolation. Reliability testing was also carried out on the questionnaire used to collect data for this phase of the study. A pilot test of the questionnaire was carried out and minor changes were made prior to conducting Phase I. A total of 45 RPCNs formed the sample for Phase I. The results of Phase I showed that:

- RPCNs expressed learning needs in all areas of palliative care, but in particular were interested in information pertaining to providing physical care to patients, such as pain and symptom management techniques
- RPCNs favoured support interventions that did not require technology use, such as face-to-face workshops, meetings, or paper-based newsletters
- RPCNs sought support from informal sources, such as Perth-based palliative care providers and local palliative care colleagues. This reliance on informal sources of support and information has implications for providers of rural palliative care education and support services
- Reliability measures for the main measurement tools, the MBI, PIMS and CPCM were tested and considered adequate
- Professional isolation was an issue of concern for some RPCNs, however overall, respondents reported having high levels of job satisfaction and few intended to leave their current position in palliative care
- Burnout scores were high for a significant proportion of the sample. In particular emotional exhaustion was a problem for the RPCNs in the sample
- RPCNs more at risk of professional isolation and burnout may be younger and are more likely to spend a limited proportion of their time performing palliative care duties and have other non-palliative care responsibilities. Completing further studies in palliative care may help alleviate feelings of professional isolation.

The findings of Phase I of this project were used to guide the planning and implementation of an educational intervention for RPCNs that formed Phase II of this project.

CHAPTER FIVE

PHASE I DISCUSSION

Introduction

The following discussion will explore the relevance of the findings of Phase I of this study. Phase I involved collecting information about RPCNs, who were the target population of this study. In particular, Phase I focussed on collecting demographic data that described the RPCN population in WA, and also examined the learning needs of this group. This information was used to develop an intervention that would assist RPCNs in their clinical practice. Therefore, the focus of this discussion will be on methodological, theoretical and clinical issues related to the development of the education-based intervention implemented and evaluated in Phase II of the study.

This study also sought to build on previous work by the researcher, which found that RPCNs in WA were often professionally isolated, stressed and at risk of suffering from burnout (McConigley, 1998). Information was sought to develop a conceptual model of the issues that may have an impact on RPCNs. Phase I of this study tested several instruments that were used to measure the levels of professional isolation and burnout reported by RPCNs in Phase II of this study. The use of these instruments with a sample of RPCNs will be discussed, and the baseline data collected in this phase of the study will be examined in the context of the professional literature.

The Demographic Profile of RPCNs

Data collected in Phase I suggested that RPCNs in WA were likely to be over the age of 40, working part time in a generalist health setting, and spending only a small proportion of their work time fulfilling palliative care related duties. RPCNs were more likely to have completed their initial nursing qualification in a hospital setting, and few RPCNs had completed postgraduate studies in palliative care or a related subject. Most RPCNs lived in the South West of the state, mainly in the more populated coastal regions. This demographic profile of RPCNs had implications for the provision of education for RPCNs. In particular, the difficulties maintaining current knowledge and accessing education opportunities were likely to be problematic for this group. Also, the issues of having a diverse RPCN population, in relation to location, work setting and

range of palliative care experience were considered when planning for the Phase II intervention was commenced.

The On-Going Educational Needs of RPCNs

The demographic profile of this sample of RPCNs was considered in terms of their learning needs. Issues that could impact on provision of education were examined. A more in-depth examination of the demographic profile of RPCNs was completed as part of Phase III of this project.

Most of the RPCNs in this study were concentrated in the South West of the state, particularly in coastal areas. This is reflective of rural population trends in Western Australia, and may also reflect the increasing number of people retiring to coastal towns (ABS, 2003). The north-west and eastern parts of the state are more sparsely populated and consequently there are fewer RPCNs. However, the 2002 Western Australian Cancer Registry showed that 95 people were diagnosed with cancer in the Kimberley and Pilbara regions in the north of the state, and a further 274 people were diagnosed with cancer in the inland regions of the Wheatbelt and Goldfields (Threlfall & Thompson, 2004). Data relating to other illnesses that may necessitate palliative care service involvement are not readily available. Although only a proportion of the people who are diagnosed with cancer are likely to require palliative care services, there will still be a significant need for palliative care services in these less populous areas on a regular basis. Therefore, education needs to be available for nurses providing palliative care in these more isolated areas, so that they are able to provide care when needed.

RPCNs in this sample worked in a variety of settings, including generalist inpatient and community health services, and specialist palliative care services. RPCNs also saw a varied number of patients, from one or two per year up to 100 per year. RPCNs also indicated a wide range of experience in the palliative care field, with some RPCNs having worked in palliative care for less than one year, and others for more than 20 years. The diversity of this sample of RPCNs had implications for the planning of an education intervention, in that any education intervention had to be suitable for a group with varied needs and understandings of palliative care. Many RPCNs also worked part-time, and may therefore have difficulties attending an education session. Gusmohamed and Guscott (1998) found that rural nurses in South Australia who worked part-time were less likely to be able to attend education sessions. This was attributed to the outside commitments of the nurses; many rural nurses chose to work

part-time because they have responsibilities to a family business such as a farm, and therefore found it more difficult to access education sessions than nurses working full-time with no other business commitments.

RPCNs in this study cared for only a small number of people requiring palliative care every year. More than 75% of the RPCNs in this study cared for 20 or fewer palliative care patients each year. It may be difficult to justify the need for palliative care education and training when some rural health services care for less than five terminally ill people per year. Other education topics, relating to areas such as cardiac care, emergency and trauma care and mental health, all a common part of rural practice (Francis, Bowman & Redgrave, 2001; Kenny & Duckett, 2003; Winters & Mayer, 2002), may seem more pressing when prioritising demands on a limited education budget. However, there is a need to ensure that further education is readily accessible for nurses who require specialist palliative care knowledge to be able to fulfil their professional duties. It is imperative that nurses working in an expanded role have adequate theoretical and clinical knowledge to meet patient needs, even when patients are limited in number.

Nurses with multiple nursing responsibilities, of which palliative care is only a relatively minor part, and who care for a limited number of palliative care patients every year, are likely to have difficulty maintaining the level of knowledge and skills required to act in a specialist nurse capacity. The nursing literature does not offer any clear solutions to assist nurses in maintaining knowledge and skills that are used sporadically. McCarthy et al. (2002) examined the needs of nurses in rural Australia who were responsible for administering chemotherapy in rural centres (n=67). Some respondents in this study saw only one patient per year who required chemotherapy, and found it difficult to maintain competency in this area. The authors suggested that mixed-mode continuing education, which involved on-going education programmes using a combination of face-to-face delivery, videoconferencing or teleconferencing and workplace support visits from experienced staff, would help staff retain their skills and knowledge. Information on the success of this educational programme is not yet available. Other authors suggest that offering regular updates relating to important topics may be helpful (Francis et al., 2001; Hegney et al., 1997; Winters & Mayer, 2002), but there is no empirical evidence to support the effectiveness of this in maintaining competency. McCarthy et al. (2003) studied rural nurses in Queensland (n=67) who were responsible for administering chemotherapy. A total of 66% of nurses

identified difficulty accessing education to effect and maintain competency in chemotherapy practice, primarily because appropriate education was not readily available.

The profile of the RPCNs who participated in Phase I highlighted some specific issues in terms of education provision. In particular, RPCNs were likely to have completed hospital-based nursing training, and only a small proportion (less than 30%) had completed further study. Therefore, it was likely that many RPCNs had not completed much study since the completion of their initial qualification, up to 20 years ago. These nurses may have had little recent experience studying, and have had little or no experience with self-paced study or distance education. It seemed likely that this group of nurses would be used to a more practically based approach to learning, and be less familiar with theoretical content (Vernon, 2000). Also, nurses were likely to be used to face-to-face delivery of education, and to be most comfortable with this method of delivery. This had implications for planning the method of delivery, objectives and content of the education intervention provided.

Only six percent of the participants in this study had completed formal education related to palliative care. Reasons for RPCNs not pursuing further education in their area of clinical specialty are not clear. However, a number of authors have discussed problems inherent in rural practice that make accessing educational opportunities difficult. Challenges include travelling times and distances from urban educational settings, the cost of travel and accommodation, difficulties obtaining time away from work and finding replacement staff to cover during the time away; these are all likely to be problematic for rural nurses (Hedman & Lazure, 1990; Hill & Alexander, 1996; St Clair & Brillhart, 1990).

It is possible that appropriate palliative care educational opportunities for this group of RPCNs were not widely available, and therefore few nurses had pursued further study in palliative care. Until recently, there were few opportunities for rural nurses in Australia to access continuing education programmes in specialty areas. Registered nurses who had completed their initial qualification in a hospital-based setting were particularly disadvantaged in terms of access to formal education relating to specialty nursing areas (Kenny & Duckett, 2003). Much of the specialty nursing education available was offered at a post-graduate level, requiring nurses to complete a Bachelor's Degree in nursing to comply with entry requirements. Nurses trained under a hospital-based, apprenticeship type programme can be reluctant to undertake a course

of study at a university (Hegney et al., 1997), or may have little interest in a course, such as a Bachelor of Nursing course, that did not focus on their area of interest. This trend may change as more courses are becoming available that offer students the opportunity to study in their chosen field and offer recognition for extensive work experience in lieu of undergraduate studies. However, the high cost of postgraduate study in Australia, which is not subsidised by the Australian Government, may continue to deter nurses from accessing formal palliative care education (Farrell, 1998).

In summary, the demographic profile of the RPCNs who responded to the survey in Phase I suggested that any education intervention would need to cater for a diverse group. Issues of geographical dispersion of RPCNs needed to be considered, and economical ways of reaching isolated nurses explored. Ways of providing timely and targeted education were paramount, because many of this group provided palliative care services on an occasional basis, and needed to refresh skills and knowledge when they were required.

Learning Needs Assessment

The findings of the learning needs assessment conducted in Phase I suggested that RPCNs were interested in accessing any education relating to palliative care that was made available to them. However, the options rated most highly were those that were offered in rural locations and those that provided face-to-face contact. RPCNs indicated that improved access to palliative care specialists for support and guidance would be helpful, as would provision of up-to-date clinical information. Least favoured options involved the use of technologies such as videoconferencing or computer technology such as the Internet. RPCNs expressed some interest in all palliative care education topics, but showed preference for increasing their knowledge of providing for the physical care of palliative care patients.

The learning needs assessment of RPCNs was completed using Tovey's (1997) guidelines to generate the outcomes of the assessment. A statement of the problem, related non-training issues, required standards, proposed learning outcomes and cost of alternatives is discussed in relation to the findings of the Phase I learning needs assessment.

Providing Education for RPCNs

The RPCNs in this study expressed interest in accessing any education about palliative care, but also stated clearly that they would prefer education to be made

available in rural locations close to them, to reduce the need to travel long distances to access education. Other needs assessments conducted in rural areas have noted similar findings (Barnabe & Kirk, 2002; Trollor, 1995). The difficulties associated with participating in urban-based education included the time needed to travel, costs associated with travelling and accommodation and difficulty finding relief staff to cover during the required absence from work (Francis et al., 2001; Kenny & Duckett, 2003). These are all likely to be issues for RPCNs in WA, where rural towns are often geographically isolated. They may be several hundred kilometres from a regional centre, and in some instances several thousand kilometres from the city of Perth. Therefore, it was considered important to explore methods of providing the education and support needs of RPCNs which did not necessitate excessive travel.

There were several options suggested to RPCNs as methods of providing education and support that utilised technologies, such as videoconferencing or the Internet, as a means of maintaining contact with other palliative care providers without the need for travel. However, only half of the RPCNs in this study indicated that they had access to the Internet, and less than half had access to videoconferencing facilities. When the Phase I survey was conducted in 2000, many rural Western Australian towns did not have local Internet service providers, making Internet access difficult and costly. Furthermore, use of videoconferencing facilities were in their infancy in many parts of the state, and it is likely that smaller rural health services would not have had ready access to videoconferencing technology.

As well as having limited infrastructure to support the use of technology, RPCNs also expressed a marked preference for educational opportunities that involved face-to-face delivery. This is reported frequently in the literature. Needs assessments in palliative care settings found people expressed a preference for workshops (Haines & Thomas, 1993) and education presented as case studies or in lecture format (Barnabe & Kirk, 2002). Stancic, Mullen, Prokhorov, Frankowski and McAlister (2003) found that when physicians ($n=62$) were given a choice of presentation formats to access education, face-to-face lecture delivery was preferred to videotaped lectures or Internet based training. The preference for face-to-face presentation, which allows interaction between participants and the course facilitator, may reflect a need for RPCNs to access peer support and to discuss difficult and emotionally charged facets of their role. Hopkinson (2002) found that for nurses ($n=28$) working in an acute hospital setting who were providing care for dying patients, the nursing handover period was invaluable as a

time for discussing patient care, sharing information and ideas and debriefing after a stressful incident. Nurses working in palliative care deal with emotionally charged issues on a regular basis, and so may need to rely on the support of others as a coping mechanism. Face-to-face interaction appears to assist in creating a supportive environment, whereas technologies such as the Internet, while allowing for the quick and easy exchange of information, may detract from the supportive functions of professional interaction.

Elsey and McIntyre (1996) compared support networks established in rural South Australia to assist rural palliative care professionals combat isolation. They found that the most successful groups were those that met face-to-face, because they formed more personal and supportive relationships than groups that conversed by telephone or videoconferencing technology. Conversely, Armer (2003) found that use of telehealth technology facilitated networking amongst a group of rural advanced practice nurses ($n=24$), and also increased their access to urban-based medical practitioners. Nurses in Armer's study were keen to further develop the use of telehealth to improve their practice. The difference in attitudes between the nurses in these two studies may be related to familiarity with the equipment required for telehealth transmissions. The nurses in Armer's study had been using telehealth for some time, and were familiar with its use, whereas nurses in Elsey and McIntyre's study reported feeling uncomfortable participating in conversations using this type of technology.

Van Boxel, Anderson and Regnard (2003) completed a small ($n=20$), randomised crossover study to examine student satisfaction and learning outcomes when using videoconferencing facilities or attending face-to-face lectures. Students preferred the face-to-face delivery, in part because of technical difficulties associated with videoconferencing equipment, and also because they found it difficult to discuss emotive topics, such as grief reactions, using the videoconferencing technology. The course facilitator also experienced some difficulties interpreting students' reactions to discussions relating to emotive topics, and felt that these were better managed in a classroom situation. However, despite preferring traditional face-to-face type classes, the students commented favourably on the videoconferenced sessions. Also, no difference was noted between scores on the post-session knowledge tests between the group who had face-to-face tuition and the group who used videoconferencing. This suggests that although face-to-face delivery may offer more in terms of socialisation and

interaction between participants and lecturer, students can increase their knowledge on a topic using either method.

Faulkner and McClelland (2002) found that technical problems decreased the enjoyment and impact of an education session about menopause presented to women in rural Queensland. It is important to note that while videoconferencing and telehealth offer an innovative way of presenting education sessions to geographically isolated people, there is a need to ensure that all of the necessary supports are in place so that the participants can recognise the full benefits of the technology. In 1998 a paper reported that telecommunications infrastructure in rural Australia was inadequate to support rural and remote nurses (Hovenga, Hovel, Klotz & Robins, 1998). Particular issues the authors cited as problematic were the cost of using technologies, lack of access for more remote communities and lack of technical support. Despite continued improvement to telecommunications in rural Australia since this paper was published, it is likely that these problems still exist for a number of rural nurses (Rural Industries Research and Development Corporation, 2004).

Internet technology, like videoconferencing and telehealth, also offers innovative ways to provide education and support to geographically isolated people, but again relies heavily on rural communities having adequate telecommunications infrastructure. A number of studies have shown that Internet technology can offer nurses great benefits as an education tool. Nurses participating in a web-based course about coordination of care (n=57) found that it was very convenient to study at home, and was of particular benefit for nurses with family commitments which made travelling to attend courses difficult. Ali, Carlton and Ryan (2004)⁸ reported that 20 graduate students that used a web-based training package found it a very positive experience, and appreciated the ability to interact with other students via email and on-line forums. Mastrian and McGonigle (1997) also reported that nurses undertaking a web-based diploma-to-degree conversion course found web-based learning a positive experience, again citing the convenience of home-based study as a major advantage. However, students in each of these studies reported feeling anxious, overwhelmed and frustrated when commencing web-based learning, in the main because they lacked adequate computer skills. The participants described the initial period of study as being a steep learning curve, with a focus on learning computer skills rather than course content. Rivera and Rice (2002) reported that students and lecturers all reported feeling frustrated with the web-based component of a university business course. Frustration

arose because of continual technical difficulties with Internet technology, and lecturers and students needed continual technical support for the course to be completed successfully. All studies suggested that adequate technical support was essential for students commencing web-based study, particularly for students with limited previous computer experience.

In light of the possibility of RPCNs being unfamiliar with Internet technology, with nearly 50% of the Phase I sample indicating that they did not have access to the Internet, and difficulties experienced Australia-wide with rural telecommunications systems, Internet based learning did not appear to offer an immediate solution to the difficulties associated with providing education to isolated health professionals. However, because this technology is improving and evolving rapidly, it should not be discounted as an option for future projects.

Focus of Educational Needs

RPCNs in this study indicated a preference for educational topics that related to provision of the physical care needs of palliative care patients. The topics that respondents indicated they were most interested in were palliative care emergencies, pain and symptom management. This focus on care needs, and in particular pain management, is contrary to a number of studies that have found that nurses do not always consider pain management a high priority. Twycross (1999) found that nurses considered pain to be an expected part of hospitalisation, and therefore gave pain assessment and pain management less priority than other aspects of nursing care. Yates et al. (1998) found that pain was poorly controlled for up to 78% of patients (n=205) in an Australian teaching hospital, with 33% of patients describing their pain as horrible or excruciating. The authors suggest that this may have been related to a reluctance on the part of nurses to offer pain relief, waiting instead for patients to request it.

Kubecka, Simon and Boettcher (1996) found that a sample of rural nurses in the USA (n=123) showed a number of deficits in their knowledge of pain management, in particular in the areas of non-pharmacological pain management and use of adjuvant therapies to manage pain. Nurses in this study demonstrated an interest in increasing their understanding of pain management techniques, and also in other symptom management as well. However, the authors compared these results with three similar studies using urban samples and found that the sample of rural nurses had similar levels of knowledge to the nurses working in urban areas.

The interest shown in pain management by RPCNs is congruent with the findings of a number of other learning needs assessments conducted in the palliative care setting over a period of more than 10 years (Farrell, 1998; Haines & Thomas, 1993; Noble et al., 2001; Samaroo, 1996; Sellick, Charles, Dagsvik & Kelley, 1996; Trollor, 1995). These studies all found that pain and symptom management were rated as very important learning needs. The rapid advances in pain management in palliative care make it essential for health professionals working in the area to keep abreast of developments, and may explain the continued requirement by palliative care professionals for education about pain and symptom management.

It appears that the desire to learn more about pain and symptom management in the palliative care setting is high across all disciplines. Trollor (1995) and Haines and Thomas (1993) studied the learning needs of medical practitioners only, and the other studies mentioned were all multidisciplinary in nature. The focus on pain and symptom management by palliative care providers is unsurprising. Research examining prevalence of symptoms in 1000 patients with advanced cancer suggests that the incidence of pain in this group may be as high as 84%, with other symptoms such as dyspnoea, fatigue and constipation being suffered by more than 50% of patients (Walsh, Donnelly & Rybicki, 2000).

Nurses may also wish to focus on improving their management of pain and other symptoms experienced by patients so that they can improve patient outcomes and therefore assist patients to experience a good death. McNamara (1996) found that nurses consider adequate symptom management to be integral in providing good patient care and facilitating a good death for patients. Kristjanson et al. (2001) expanded on the concept of nurses trying to ensure a good death for patients, and found that nurses may suffer grief and regret if symptoms are poorly managed. Nurses in this study felt that uncontrolled symptoms meant that a patient death should be categorised as bad, and many saw this as a failure on their part. McNamara suggested that nurses were less stressed and felt increased satisfaction with their work when patients died a good death.

Physical care needs were the topics that RPCNs ranked as most important, however other topics that were rated highly related to clinical care provision such as grief and bereavement. This suggests that RPCNs place most emphasis on providing patient care, and are less interested in management and administration tasks such as quality management and funding. McConigley (1998) found that clinical care was the facet of the RPCN role that was the most satisfying and sustaining for nurses, and other

non-clinical tasks were viewed as necessary but not fulfilling. McConigley's study found that RPCNs had a responsibility for areas such as budgeting and securing grants and outside funding, and had limited experience and knowledge in these areas. However, education topics related to management and administrative type duties were not ranked highly as desirable education topics. Similarly, education about self-care and stress management was not rated as being very desirable, but this seems inconsistent with results of this study which show that a significant number of RPCNs are experiencing moderate to high levels of burnout. It may therefore be that RPCNs are describing their education "wants", that is, the topics that they find most interesting, rather than their education needs.

Williams (1998) cautions that while a learning needs assessment assumes that people can determine their own learning needs, often they will more readily identify learning wants. That is, they will choose to participate in education that interests them, rather than education that provides them with information about an area that they need to learn more about. An assessment of the palliative care learning needs of group of physicians in Canada (n=78) clearly illustrates this point. The physicians reported that they had adequate pain management knowledge, and that pain management techniques were a low priority education topic for them (Barnabe & Kirk, 2002). However, the authors also questioned other health professionals working in palliative care about the possible learning needs of physicians, and pain management was identified as an area in which physicians needed more training. To get a balanced perspective of the learning needs of any group it is helpful to gather data from all stakeholders. In this study, information about gaps in RPCN knowledge and practice could have been obtained from colleagues, managers and patients. This was beyond the scope of this study, but future research could explore the learning needs of RPCNs from the perspectives of others who are affected by their work practices.

Confidence and Palliative Care Learning Needs

RPCNs were asked to rate their confidence when providing care for palliative care patients, so that levels of confidence in these areas could be considered as part of the assessment of areas of most need in terms of education provision. Respondents were asked to describe their confidence in providing care in 12 different domains of palliative care practice. Palliative care emergency care was the area RPCNs reported having least confidence in; this was also the learning need ranked as most important. Other areas that RPCNs had less confidence in, such as management and

administration, multicultural issues and use of complementary therapies, were not noted as high priority learning needs. However, pain management, which was rated as the second highest priority learning need, was also reported as the second area RPCNs felt confident in when providing care. This may reflect the need for RPCNs to keep up-to-date in the ever-changing area of pain management, or may be reflective of a specific interest on the part of RPCNs. It is possible that an interest in effecting better pain management for patients is one reason that nurses choose to work in the palliative care area (Webster & Kristjanson, 2002). As a way of triangulating the learning needs assessment findings, measuring confidence in palliative care provision has served to highlight a need for assistance in managing palliative care emergencies.

Planning an Education Intervention

The findings of the Phase I learning needs assessment were used to guide the planning and implementation of an intervention in Phase II of this project, based on Tovey's (1997) guidelines for effective use of needs analysis data.

Statement of the Problem

The problem that the learning needs analysis sought to address was the lack of access to education and professional support opportunities for nurses who provide palliative care in rural communities in WA. The RPCNs surveyed indicated a strong interest in accessing any palliative care related education, but were particularly interested in education provided on a local basis, and expressed a preference for education opportunities that allowed for personal contact, such as lectures or workshops. On an organisational level, difficulties may be experienced in providing timely and cost effective palliative care education for a small number of staff involved in care provision. On an individual level, RPCNs may experience a lack of confidence and feelings of professional isolation when trying to provide care without regular opportunities to update their palliative care knowledge.

Rural delivery issues.

There are a number of issues that may be expected to have an impact on providing education which need to be considered. Firstly, the large distances between towns in WA make travel expensive and time consuming. This means that the costs of an experienced palliative care educator travelling to geographically isolated locations to provide regular education is prohibitive. Similarly, the cost of travel for rural nurses is also prohibitive, again in terms of time and finance. Therefore, innovative ways of

providing regular palliative care education sessions in geographically isolated areas is essential. The availability of telecommunications infrastructure in rural WA at the time of the Phase I survey meant that providing education, via the Internet or videoconferencing technology, would exclude a number of potential participants who did not have access to the necessary equipment. The scope of this study, with particular regard to time and budgetary constraints, meant that the intervention needed to be able to be completed in a 12-month period, and to be cost effective. No on-going interventions were considered, as the researcher did not have the capacity to maintain an intervention after the duration of the project.

Standards required.

There are no specific rural palliative care standards to guide practitioners. Instead, the Palliative Care Australia (1999) *Standards for Palliative Care Provision* was used to underpin the content of the education provided. This is a guideline provided for all Australian palliative care professionals, and acts as an indicator for measuring the effectiveness of palliative care delivery.

Learning outcomes.

The findings of this learning needs assessment stress the importance of being able to deliver timely, relevant clinical information to rural health professionals. Therefore, the specific learning outcomes developed for Phase II of this project were underpinned by this need. In particular, the learning outcomes developed aimed to make high quality palliative care information available to as many isolated RPCNs in WA as possible.

Costing of alternatives.

Several alternatives were considered for the intervention implemented in Phase II. Interestingly, cost was not the major factor in making a decision about the most appropriate method of delivering palliative care education to rural communities, despite resource constraints associated with this project. Of greater relevance were issues of resource allocation and duplication.

One possible choice was to develop a telephone help-line that would allow RPCNs to access support and information from urban-based palliative care providers. A pilot study in New South Wales found that a telephone help-line was beneficial to isolated rural families requiring palliative care information and support (Wilkes, Mohan, White & Smith, 2004). A similar service for health professionals was also

likely to be useful. This method of providing assistance for RPCNs took into account their interest in having greater access to palliative care specialists. However, shortly after this learning needs assessment was completed, the Western Australian government funded two telephone help-lines for rural palliative care providers. Therefore, it was not appropriate to duplicate this service.

A distance education package for RPCNs was also considered, but again had been implemented by another organisation. In 2000 the Royal College of Nursing Australia received Commonwealth Government funding to deliver a palliative care distance education package to Australian nurses. The author was involved in this project, and had an understanding of the limited impact it made on RPCNs in WA, with only a small number able to make the time commitment required to complete the course. Duplication of this material was not considered useful.

The final decision.

An intervention for this project was decided upon that would address the palliative care education needs of rural nurses who were primarily generalists, who had an occasional need for palliative care information to provide for patient care needs. The intervention was chosen to meet the needs of rural health services to maintain knowledge levels in staff, and to meet the needs of individuals who expressed learning needs in the areas of physical care provision, and in particular pain and symptom management (Gould, Kelly & White, 2004).

Training palliative care educators, so that specialist RPCNs have the means to provide education to other relevant health care professionals, was decided upon as the best option to meet the learning needs of RPCNs. This intervention was considered the most appropriate for several reasons. Firstly, having an identified educator who could provide palliative care education to other staff on an as needed basis allowed health services to present timely and relevant education sessions. Adult learners prefer information delivered to them that is practical and relevant (Knowles, 1990). Therefore, a local RPCN who could provide training when it is required, for example about a particular patient requiring palliative care, would be able to provide short education sessions in a timely manner.

McConigley (1998) found that RPCNs often acted in an informal educative role, in that other staff considered them to have expert palliative care knowledge. Jack, Oldham and Williams (2003) found that specialist palliative care nurses in acute general hospitals were considered a valuable source of information, advice and support.

Dusmohamed and Guscott (1998) described a project that trained rural nurses to act as mentors and role models in their health service, as well as to act in an advisory capacity for other nurses in the health service. The authors aimed to empower individuals to effect changes in practice in their workplace, and to build capacity from within the community, therefore decreasing reliance on urban-based palliative care education providers.

This learning needs assessment identified local sources of palliative care information as being accessed most often. Therefore, providing RPCNs with training to assist them in their role as educator, and with relevant teaching materials, helped prepare them for this aspect of their professional role. Provision of teaching materials also helped in ensuring that suitable information about palliative care was readily available, so that information sought from local sources would be underpinned by theoretical and research based information.

Measurement and Methodology Issues

As part of Phase I information about RPCNs and levels of burnout, professional isolation, job satisfaction and intention to leave or remain in their palliative care position were collected. Initially, it was planned to use these data to compare the scores of RPCNs in Phase I, prior to the intervention being offered, with the scores of RPCNs in Phase II, after the intervention was completed. However, the difficulties experienced by RPCNs also impacted on this study. RPCNs often work in geographically isolated areas, and may be professionally isolated. Therefore, it was difficult to identify RPCNs who could be included in both the Phase I and Phase II samples. Furthermore, there appears to be a high level of staff turnover in the rural palliative care setting, and a number of the RPCNs surveyed in the Phase I study were no longer available to be questioned as part of Phase II. Therefore, the data collected in Phase I were not used for comparison with Phase II data, and were instead treated as a larger pilot study to test the newly developed instruments used for Phase II testing.

Two new instruments were developed for use in measuring issues relevant to RPCNs in WA. The PIMS was developed to measure professional isolation, and had three subscales that measure isolation, job satisfaction and intention to leave palliative care. The CPCM was developed to measure how confident the RPCNs felt when delivering palliative care in key domains. Also, the MBI was used to measure levels of perceived burnout in this sample. The MBI has been widely used in the palliative care settings in the past, but has not been used in a rural palliative care sample. Reliability

statistics were calculated for each of the instruments using Cronbach's alpha. The alpha scores for each of the instruments were considered acceptable, because they exceeded the criterion of being greater than 0.70, described by Nunnally and Bernstein (1994).

Conclusion

The findings of the Phase I learning needs assessment showed that RPCNS desired further education about physical care needs, in particular pain and symptom management and strategies for dealing with palliative care emergencies. This reflects findings of other palliative care needs assessments, and highlights the importance of providing excellent symptom management for people with a terminal illness. RPCNs had a preference for face-to-face delivery of education, perhaps to allow personal interaction with colleagues, which would provide for RPCNs' support needs. The findings of this needs assessment influenced the decision to present an education intervention to RPCNs that would assist them in provision of palliative care education to others in their communities. The intervention would be provided by a facilitator in rural locations throughout WA, thus decreasing the need for travel by RPCNs. The education intervention was planned with the aim of providing RPCNs with the skills and materials required to provide education on a series of palliative care topics related to clinical care provision.

CHAPTER SIX

FINDINGS: PHASE II EVALUATION OF AN EDUCATION INTERVENTION

Introduction

Phase II of this project involved the implementation and evaluation of an intervention to provide education for RPCNs. This chapter describes the evaluation of the intervention that was conducted and provides details of the analysis of the effect of the intervention on levels of professional isolation, burnout and job satisfaction, and on RPCNs' intentions to leave palliative care. The conceptual framework developed for this study was also tested as part of Phase II.

This phase of the research project answered the following questions:

- How did the workshop participants rate their satisfaction with this intervention?
- How did recipients of the *Over Handover* education package rate their satisfaction with it as a tool to enhance their role as a palliative care educator?
- How regularly did recipients of the *Over Handover* education package use it to provide education in their workplace?
- How did the intervention affect recipients' clinical confidence in providing palliative care?
- To what extent did the intervention decrease the level of professional isolation reported by RPCNs?
- To what extent did the intervention decrease the level of burnout reported by RPCNs?
- To what extent did the intervention increase the level of job satisfaction reported by RPCNs?
- Did the intervention alter the RPCNs' intention to remain in palliative care?

- To what extent was the reported level of burnout related to levels of professional isolation?
- To what extent was the reported level of job satisfaction related to levels of professional isolation and burnout?
- Were there any indicators that would predict which RPCNs were more at risk of professional isolation and burnout?
- Were there any indicators that would predict which RPCNs were more at risk of leaving palliative care?

Reliability Testing of Instruments

Cronbach's alpha coefficients were calculated to estimate the internal consistency of the three instruments used in Phase II: the PIMS, CPCM and MBI. This was considered necessary because the PIMS and CPCM were developed for this study and further information regarding the internal consistency of the instruments was helpful in establishing the reliability of the measurement tools.

The Cronbach's alpha coefficient for each instrument is listed in Table 21. Coefficients for the instruments measured in the pilot study and Phase I are also presented for comparison. The Cronbach's alpha co-efficient for each instrument was considered acceptable if the value was above 0.70 (Nunnally & Bernstein, 1994). The coefficients for the job satisfaction subscale were notably less than 0.70 and require further attention. All other alpha coefficients were above or only slightly below the accepted level of 0.70.

Table 21: Alpha Coefficients for Phase I and Phase II

| INSTRUMENT | Time Testing Occurred | | | | |
|--|------------------------|--------------------|-------------------------------|-------------------------------|-------------------------------|
| | Pilot study (n= 17) | Phase I (n= 46) | Phase II Time I (n= 65) | Phase II Time 2 (n= 65) | Phase II Time 3 (n= 65) |
| PIMS (overall score) (14 items) | 0.86 | 0.86 | 0.76 | 0.80 | 0.80 |
| Isolation subscale (8 items) | 0.67 | 0.79 | 0.77 | 0.77 | 0.79 |
| Job satisfaction subscale (3 items) | 0.68 | 0.74 | 0.48 | 0.43 | 0.53 |
| Intention to leave subscale (3 items) | 0.89 | 0.89 | 0.66 | 0.78 | 0.84 |
| CPCM (12 items) | 0.75 | 0.88 | 0.87 | 0.90 | 0.84 |
| MBI | | | | | |
| Emotional exhaustion subscale (9 items) | 0.95 | 0.90 | 0.80 | 0.88 | 0.88 |
| Depersonalisation subscale (5 items) | 0.84 | 0.62 | 0.68 | 0.74 | 0.71 |
| Personal Accomplishment subscale (8 items) | 0.72 | 0.75 | 0.66 | 0.79 | 0.77 |

Evaluation of the Palliative Care Educator Workshops

As part of this research project, data were collected that evaluated participants' satisfaction with the palliative care educator workshops and the *Over Handover* package. This was useful to evaluate the project and to assist in modifying the intervention prior to offering it again. The intervention was also evaluated to assess if provision of education and resources caused a change in reported levels of professional isolation, burnout, job satisfaction, and in the RPCNs' intentions to leave palliative care.

Evaluation of the Intervention: Participant Feedback

A survey was conducted to ascertain participants' satisfaction with the intervention. The workshops were evaluated at the end of the day's proceedings, and both the booklet and the *Over Handover* packages were evaluated three months after the workshops. The three-month post-intervention evaluation was chosen to allow RPCNs time to use the *Over Handover* packages, and also coincided with the final data collection survey for Phase II of the study.

Evaluation of Participant Satisfaction with the Palliative Care Educator Workshops

At the completion of each of the six workshops participants were asked to complete a short evaluation form that would assist in planning future education sessions. The evaluation tool used a five point Likert-type scale to evaluate ten key points (see Appendix G). The word anchors for the scale ranged from *strongly agree* to *strongly disagree*, with the central option being *uncertain*. The points evaluated were: usefulness of pre-reading material, lecture objectives, appropriateness of lecture content, usefulness of lecture content to clinical practice, contribution of workshop to learning, interest in content, encouragement to continue reading on the subject, level of content provided, usefulness of learning activities and amount of content. A further space was provided for participants to provide comments if they wished.

A total of 50 evaluations were returned by 53 RPCNs who attended the workshops, giving a response rate of 94.3%. The results of the evaluation were mostly positive, with at least 98% of respondents giving a response of agree or strongly agree to each of the statements. The only exception to this is the statement regarding the pre-reading for the workshop, which 42% of the respondents stated was not applicable to them, and a further 10% reported being uncertain. The posting of pre-reading was discontinued after the third workshop because most participants had not read it prior to attending, and it was given to participants during the workshop instead.

Additional comments were made by 35 of the total 50 respondents. The comments were largely positive in nature, although one participant suggested that more time should have been devoted to discussing palliative care specific issues. The comments were coded into three main categories, which are presented in Table 22.

Evaluation of Satisfaction with the Over Handover Education Packages

Information was sought from workshop participants about how useful the *Over Handover* package had been for them, and how often they had used it in their workplace. The evaluation tool for measuring satisfaction with the intervention was included in the questionnaire sent out at Time 3, three months after the workshops were conducted. The *Over Handover* evaluation tool asked RPCNs to report how much of the package they had either read or used in their workplace. It also asked them to evaluate how helpful each separate booklet was, and finally how helpful each section of the booklets was. Respondents were also given the opportunity to comment on any aspect of the package or the educator workshops.

Table 22: Examples of Free Response Comments From Workshop Evaluations

| Comment category | Example | Frequency of comment |
|--------------------------------------|---|----------------------|
| Enjoyable experience | Thank you for a most stimulating and enjoyable day [Ev 31] | 21 |
| Information received helpful | Information is of great benefit to me and certainly has opened a new area of interest for me [Ev 4] | 8 |
| Preparation of materials appreciated | A lot of work has gone into the preparation and material given [Ev 5] | 3 |
| Style of presentation | I enjoyed the small sized group, it was very relaxed [Ev 18] | 3 |
| TOTAL | | 35 |

A total of 36 RCPNs who had attended a palliative care educator workshop responded to the questionnaire in Phase II of this study, giving a response rate of 67%. Almost 75% of the respondents reported having used a moderate amount or more of the *Over Handover* package. Figure 11 shows the amount the respondents reported using the *Over Handover* package.

Respondents were asked to describe how helpful they considered each booklet in the package, using a three-item scale: *helpful*, *not helpful*, *not used*. None of the respondents described any part of the booklets as *not helpful*. The largest number of respondents considered the booklets, Pain Management 1, Pain Management 2 and Nausea and Vomiting helpful, and all other booklets were considered helpful by at least 70% of respondents. The Community booklet was the least used; 30% had not used this booklet, but 70% had used it and found it helpful. Table 23 shows the responses of RCPNs in relation to the helpfulness of the *Over Handover* booklets.

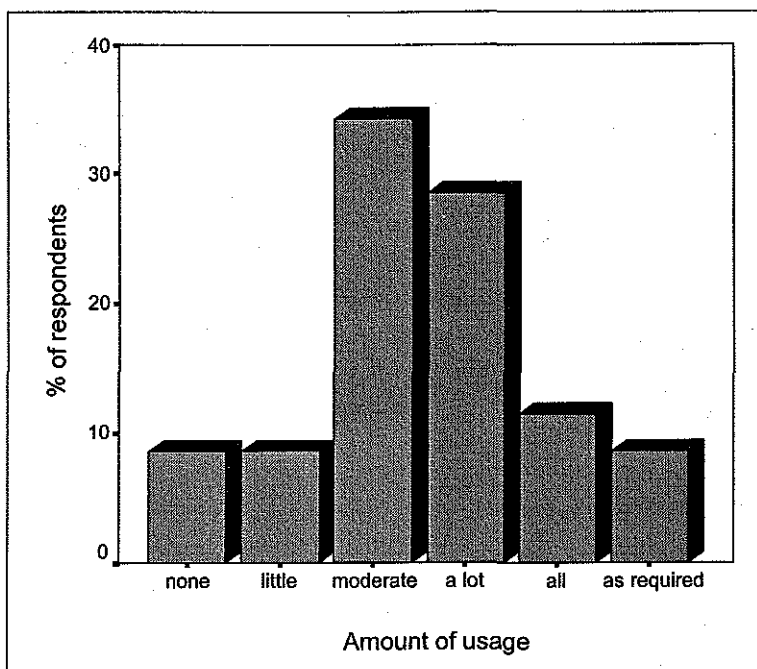


Figure 11: Reported Frequency of Use of Over Handover Packages (n= 36)

As part of the *Over Handover* evaluation respondents were also asked to rate each of the sections found in the booklets as helpful, not helpful or not used. Table 24 shows the responses for each of the ten sections in the booklets. Each of the sections were reported as being helpful by at least 62% of respondents; the lecture notes were considered helpful by the largest number of respondents, and the evaluation forms were reported as being helpful by the least number of respondents, with 62% reporting them as helpful.

The evaluation of the *Over Handover* package also allowed for respondents to make comments relating to the packages or the educators workshop. A total of 15 respondents made comments as part of their evaluation, several commenting on more than one area, with a total of 26 separate comments being recorded. The responses were coded and are presented in Table 25. All comments were positive in regards to both the *Over Handover* package and the palliative care educator workshops, with the exception of one response that suggested that more time at the workshops could have been devoted to asking questions. However, nine participants did say that although the *Over Handover* package had been helpful, they had experienced difficulty teaching in the workplace, often due to lack of time.

Table 23: Frequency and Percentage Distribution of Reported Helpfulness of Booklets in the Over Handover Package

| Booklet | Helpful | | Not Helpful | | Not used | |
|--------------------------------|---------|------|-------------|---|----------|------|
| | n | % | n | % | n | % |
| Pain management 1 (n= 33) | 30 | 90.9 | 0 | 0 | 3 | 9.1 |
| Pain management 2 (n= 33) | 30 | 90.9 | 0 | 0 | 3 | 9.1 |
| Nausea and vomiting (n= 33) | 30 | 90.9 | 0 | 0 | 3 | 9.1 |
| Bowel management (n= 34) | 30 | 88.2 | 0 | 0 | 4 | 6.2 |
| Medications (n= 34) | 30 | 88.2 | 0 | 0 | 4 | 11.8 |
| Respiratory management (n= 33) | 29 | 87.9 | 0 | 0 | 4 | 12.1 |
| Bereavement (n= 33) | 27 | 81.8 | 0 | 0 | 6 | 18.2 |
| Final stages of life (n= 33) | 26 | 78.8 | 0 | 0 | 7 | 21.2 |
| Wound management (n= 34) | 24 | 70.6 | 0 | 0 | 10 | 15.4 |
| Community (n= 33) | 23 | 69.7 | 0 | 0 | 10 | 30.3 |

Table 24: Frequency and Percentage Distribution of Reported Helpfulness of Over Handover Booklet Sections (n= 32)

| Section of booklet | Helpful | | Not helpful | | Not used | |
|-------------------------|---------|------|-------------|-----|----------|------|
| | n | % | n | % | n | % |
| Lecture notes | 28 | 87.5 | 0 | 0 | 4 | 12.5 |
| Case study | 27 | 84.4 | 0 | 0 | 5 | 15.6 |
| Introduction | 27 | 84.4 | 0 | 0 | 5 | 15.6 |
| Recommended readings | 26 | 81.3 | 0 | 0 | 6 | 18.8 |
| Lesson plan | 24 | 75.0 | 1 | 3.0 | 7 | 22.0 |
| Overhead transparencies | 23 | 71.9 | 1 | 3.1 | 8 | 25.0 |
| Handouts | 23 | 71.9 | 0 | 0 | 9 | 28.0 |
| Reference list | 23 | 71.9 | 1 | 3.1 | 8 | 25.0 |
| Activities | 22 | 69.0 | 1 | 3.0 | 9 | 28.0 |
| Evaluation | 20 | 62.5 | 1 | 3.1 | 11 | 34.4 |

Table 25: Participant Comments About the Over Handover Package and the Educator Workshops

| Comment category | Example | Frequency |
|---|--|-----------|
| Standard of package and workshops high | I have used much info from this package – was most helpful in my recent visit to...give education to staff in remote areas [TS6] | 9 |
| Unable to teach in my workplace | Found it difficult to teach as time constraints [TS3] | 9 |
| Used as resource for other health professionals | Have found it extremely useful to be able to pull parts out to give as information to others [BT3] | 7 |
| Suggested improvements | I enjoyed the workshop...but felt there was not enough time to ask questions or share experiences [AL1] | 1 |
| TOTAL | | 26 |

In summary, responses to the evaluation of the intervention were largely positive. Participants reported having enjoyed the palliative care educator workshops, and reported that the content was interesting and useful. Responses to the *Over Handover* package were also positive, with the majority of participants having used part or all of the package and described it as being a helpful tool in their practice.

Evaluating the Effects of the Intervention

As well as assessing participant satisfaction with the educational opportunities provided, information was sought about whether the implementation of a targeted education intervention would have any impact on the reported levels of confidence in palliative care provision, professional isolation, burnout and job satisfaction, and whether RPCNs who had participated would indicate an increased intention to leave palliative care work.

All RPCNs who attended a workshop were surveyed three times: Time 1 was prior to the commencement of the workshop, Time 2 was after the workshop was completed, and Time 3 was three months after the attendance at a workshop. The instruments used for this survey were:

- Demographic profile

- CPCM
- PIMS
- MBI
- Exposure to education measure (Time 3 only).

Pre and post intervention testing was completed to test any changes in the dependant variables over time. A group of RPCNs who did not attend a workshop were also surveyed and used as a comparison. These data were used to test for differences between RPCNs who attended workshops (Group A) and those who did not (Group B). Group B RPCNs were sent only one questionnaire, at the same time as Group A received their Time 3 follow-up questionnaire.

The exposure to education measure was included in the questionnaire sent to both Group A and Group B, so that the effects of other educational opportunities that RPCNs had accessed could be controlled for during statistical analysis.

Questionnaires were sent to 53 RPCNs in Group A, and 36 were returned, giving a response rate of 67%. Questionnaires were sent to 57 RPCNs in Group B, and 29 were returned, giving a response rate of 51%.

Demographic Profile of RPCNs Surveyed in Phase II

A demographic profile of RPCNs in Group A and Group B was compiled to provide information about each sample, and to determine if there were any significant differences between the two groups. Differences between Group A and Group B for all ratio level variables (age, years of nursing experience, years spent working in palliative care, number of palliative care patients cared for per year) were tested for using an independent samples t-test, and the results are presented in Table 26. There was a significant difference in age of respondents between Group A and Group B, with RPCNs in the Group B sample being on average nearly 5 years older than RPCNs in the Group A sample. The magnitude of the differences in means was moderate (eta-squared= 0.07). There were no significant differences between Group A and Group B in years of nursing experience, years spent working in palliative care or number of palliative care patients cared for per year.

Table 26: Comparison Between Group A and Group B for Demographic Variables Measured on a Ratio Level Scale

| Variable | | M | SD | t | df | p |
|---|-----------------|-------|-------|------|----|------|
| Age (years) | Group A (n= 36) | 44.88 | 9.13 | 2.22 | 63 | 0.03 |
| | Group B (n= 29) | 49.65 | 7.87 | | | |
| Years worked in nursing | Group A (n= 36) | 21.76 | 9.51 | 0.78 | 62 | 0.44 |
| | Group B (n= 28) | 23.53 | 8.37 | | | |
| Time spent working in palliative care | Group A (n= 36) | 9.21 | 6.65 | 0.05 | 59 | 0.92 |
| | Group B (n= 25) | 9.30 | 6.85 | | | |
| Number of palliative care patients cared for per year | Group A (n= 31) | 16.44 | 20.54 | 0.44 | 50 | 0.66 |
| | Group B (n= 21) | 19.00 | 20.22 | | | |

Demographic variables measured on a categorical scale (geographical location, employment status, type of health service employed by, proportion of time spent working in palliative care, highest qualification obtained and area of postgraduate study) were compared for Group A and Group B, and results are presented in Table 27. However, because of the small sample size used for this study it was not possible to test for differences between the two groups for these variables. Chi-square analysis requires that each category have a frequency of at least five; this assumption was violated for all of the categorical level demographic variables. Comparison of the responses for these variables showed no apparent differences between Group A and Group B, with the exception of the geographic location of respondents. No Group A respondents worked in the Kimberley, Pilbara or Gascoyne region of WA. These are the most Northerly regions of WA where it was not possible to hold a workshop. Group B had six respondents from these Northern regions. Because of the differences in age and location between RPCNs in Group A and Group B, any comparisons between the two groups are presented with caution.

Table 27: Comparison Between Group A and Group B for Demographic Variables Measured on a Categorical Level Scale

| Variable | Categories | Group A | | Group B | |
|-------------------------------|----------------------|---------|------|---------|------|
| | | n | % | n | % |
| Employment hours | Full-time | 17 | 48.5 | 12 | 40.0 |
| | Part-time | 17 | 48.5 | 16 | 53.3 |
| | Casual | 1 | 3.0 | 2 | 6.7 |
| Time spent in palliative care | 0-24% | 21 | 58.3 | 18 | 64.3 |
| | 25-49% | 1 | 2.7 | 5 | 17.8 |
| | 50-74% | 5 | 13.9 | 1 | 3.6 |
| | 75-99% | 4 | 11.1 | 0 | 0 |
| | All | 5 | 13.9 | 4 | 14.3 |
| | As required | 0 | 0 | 0 | 0 |
| Geographical location | Great Southern | 10 | 27.8 | 9 | 31.0 |
| | South West | 8 | 22.2 | 9 | 31.0 |
| | Wheatbelt | 6 | 16.7 | 3 | 10.3 |
| | Goldfields | 1 | 2.8 | 1 | 3.4 |
| | Gascoyne | 0 | 0 | 1 | 3.4 |
| | Midwest | 11 | 30.5 | 1 | 3.4 |
| | Kimberley | 0 | 0 | 4 | 13.8 |
| | Pilbara | 0 | 0 | 1 | 3.4 |
| Highest qualification | Hospital diploma | 26 | 72.2 | 23 | 79.3 |
| | Undergraduate degree | 5 | 13.9 | 3 | 10.3 |
| | Postgraduate diploma | 4 | 11.1 | 1 | 3.4 |
| | Other | 1 | 2.7 | 2 | 6.9 |
| Postgraduate specialty area | Palliative care | 2 | 5.5 | 2 | 6.9 |
| | Other | 8 | 22.2 | 7 | 24.1 |
| | None | 26 | 72.2 | 20 | 69.0 |

Education and RPCNs

At the three-month follow-up period survey respondents were asked to report what palliative care educational they had accessed in the 12-month period preceding the survey. This information helped to build a picture of what educational opportunities were available and accessed by RPCNs over a 12-month period. Respondents were asked to indicate whether they had accessed any of eight possible sources of palliative care education in the preceding 12 months. The options were: palliative care conferences, short talks or lectures about palliative care, a videoconference or teleconference about palliative care, palliative care textbooks, journal articles from either general health journals or palliative care specific journals, or Internet sources. Respondents were also asked to provide information regarding other sources of palliative care education that they had accessed in that timeframe. Responses were collated to provide information about major sources of palliative care education for RPCNs.

The total number of palliative care educational resources utilised by RPCNs was calculated by summing the number of educational resources each respondent indicated they had accessed. A total of eight options were offered; however, the final category of *other* allowed respondents to add any number of resources they had used, with some respondents listing more than one palliative care educational resource other than those listed in the questionnaire. This allowed for a minimum of zero palliative care education opportunities used, with the maximum number being potentially unlimited. The minimum number reported was zero, and the maximum eight. The mean number of educational opportunities accessed by respondents ($n=65$) was 3.23 ($SD=1.83$).

The most frequently accessed palliative care educational opportunity by this sample of RPCNs was a palliative care textbook, which was used by more than 60% of respondents. The least utilised source of palliative care information was the Internet, with only 13% of respondents having used this source of palliative care information. Table 28 shows the utilisation of palliative care educational resources by RPCNs.

Table 28: Frequency and Percentage Distribution of Palliative Care Educational Resources Accessed, Ranked From Most Used to Least Used (n= 65).

| Educational Opportunity | n | % |
|---------------------------------|----------|----------|
| Palliative care textbook | 42 | 64.6 |
| Palliative care conference | 36 | 55.4 |
| Short talk/lecture | 35 | 53.8 |
| Article in professional journal | 32 | 49.2 |
| Video/teleconference | 28 | 43.1 |
| Palliative care journal | 15 | 23.1 |
| Other | 13 | 20.0 |
| Internet | 9 | 13.8 |

An independent samples t-test was used to test for differences between the number of palliative care educational opportunities accessed by RPCNs in Group A and RPCNs in Group B. There was no significant difference between Group A (M= 3.08, SD= 1.99) and Group B (M= 3.41, SD= 1.61, $t(63) = 0.72$, $p = 0.47$).

To be certain that the number of palliative care educational opportunities RPCNs had accessed did not have a statistically significant relationship with CPCM, PIMS and MBI scores, Pearson’s correlation coefficients were calculated. There was no statistically significant correlation between the number of palliative care opportunities accessed and scores from the CPCM, PIMS and MBI. The r-values were low, ranging from 0.01 to -0.15. Therefore, exposure to palliative care education opportunities was not controlled for when conducting further tests in this phase of the study.

Effects of Offering an Education Opportunity to RPCNs

This research examined the effects of offering a palliative care education workshop had on levels of confidence in providing clinical palliative care, levels of professional isolation, burnout and job satisfaction. The effect of attending a workshop on participants’ reported intention to remain in palliative care practice was also examined.

Effects of Education Attendance on Confidence in Palliative Care

The CPCM was used on three occasions to measure levels of reported confidence: before the workshop commenced (Time 1), at the completion of the workshop (Time 2), and three months after attending the workshop (Time 3). A one-way repeated measures ANOVA was used to test for differences in the CPCM score at Time 1, 2 and 3. The descriptive statistics for the CPCM scores at each time are presented in Table 29. There was significant effect for time, Wilks' Lambda= 0.77, $F(2,33)= 4.89$, $p= 0.14$, multivariate eta-squared= 0.23. The multivariate eta-squared suggested that time had a large effect on CPCM scores, with scores increasing over time.

Table 29: Descriptive Statistics for CPCM Scores for Time1, Time 2 and Time 3.

| Time period | n | M | SD |
|----------------------------|----|-------|------|
| Time 1 (pre-workshop) | 35 | 38.49 | 7.25 |
| Time 2 (post workshop) | 35 | 39.14 | 8.14 |
| Time 3 (3 month follow-up) | 35 | 42.20 | 5.86 |

Post hoc testing using a paired samples t-test showed a significant increase in CPCM scores from Time 1 (M= 38.49, SD= 7.25) to Time 3 (M= 42.20, SD= 5.86), $t(34)= -2.94$, $p= 0.006$, with the eta-squared statistic (0.20) indicating a large effect. There was also a significant increase in CPCM scores from Time 2 (M= 39.33, SD= 8.11) to Time 3 (M= 42.33, SD= 5.86), $t(35)= -2.74$, $p= 0.01$. The eta-squared statistic (0.17) again indicated a large effect size. There was no significant difference between Time 1 and Time 2, $t(35)= -0.612$, $p= 0.54$. This suggests that CPCM scores did not increase significantly immediately after the workshops, but that three months after the workshops were held RPCNs felt more confident in their palliative care practice.

The difference in CPCM scores between Group A and Group B at Time 3 were also tested using an independent samples t-test. There was no significant difference in scores for Group A (M= 42.33, SD= 5.84), compared with Group B (M= 40.22, SD= 6.93), $t(62)= -1.31$, $p= 0.19$. The magnitude of the differences in the means was small (eta-squared= 0.02).

Effect of Educator Workshops on Professional Isolation

To ascertain if the palliative care educator workshops had any effect on professional isolation the PIMS was used on three occasions to measure the levels of professional isolation reported by RPCNs. The measurements were taken prior to the commencement of the workshop (Time 1), immediately after the workshop (Time 2) and a follow-up evaluation was conducted after three months (Time 3).

A one way repeated measures ANOVA was conducted to compare professional isolation scores at Time 1, Time 2 and Time 3. The means and standard deviations for each of the four professional isolation scores are presented in Table 30. The results of the multivariate tests performed are presented in Table 31. Significant effects for time were noted for isolation and intention to leave scores. There were no statistically significant changes in PIMS and job satisfaction over time.

Table 30: Descriptive Statistics for Professional Isolation Scores for Time 1, Time 2 and Time 3.

| Professional isolation scores | Time period | N | M | SD |
|---|-------------|----|-------|------|
| PIMS score (Range 0-84) | Time 1 | 36 | 37.61 | 9.53 |
| | Time 2 | 36 | 37.42 | 9.75 |
| | Time 3 | 36 | 34.81 | 9.82 |
| Isolation score (Range 0-48) | Time 1 | 36 | 26.06 | 6.63 |
| | Time 2 | 36 | 26.72 | 5.72 |
| | Time 3 | 36 | 22.92 | 5.67 |
| Job satisfaction score (Range 0-18, scored in reverse) | Time 1 | 36 | 7.31 | 2.74 |
| | Time 2 | 36 | 6.39 | 2.60 |
| | Time 3 | 36 | 6.36 | 2.84 |
| Intention to leave score (Range 0-18) | Time 1 | 36 | 4.25 | 3.77 |
| | Time 2 | 36 | 4.31 | 4.12 |
| | Time 3 | 36 | 5.53 | 4.44 |

Table 31: Multivariate Test Statistics for Professional Isolation Scores at Time 1, Time 2 and Time 3

| Professional isolation score | Wilks' Lambda | F | df | P | Eta ² |
|------------------------------|---------------|-------|-------|-------|------------------|
| PIMS score | 0.86 | 2.85 | 2, 34 | 0.072 | 0.14 |
| Isolation score | 0.62 | 10.45 | 2, 34 | 0.000 | 0.38 |
| Job satisfaction score | 0.85 | 3.00 | 2, 34 | 0.063 | 0.15 |
| Intention to leave score | 0.83 | 3.36 | 2, 34 | 0.047 | 0.16 |

Post hoc testing was conducted using paired samples t-tests to determine the significance of the changes in scores. The testing indicated a significant decrease in isolation subscale scores between Time 1 (M= 26.05, SD= 6.63) and Time 3 (M= 22.92, SD= 5.67), $t(35) = 3.46$, $p = 0.001$. The eta-squared statistic (0.25) indicated a large effect size. There was also a significant decrease in isolation subscale scores from Time 2 (M= 26.72, SD= 5.72) to Time 3 (M= 22.92, SD= 5.67), $t(35) = 4.63$, $p = 0.000$. The eta-squared statistic (0.34) again showed a large effect size. There was no significant difference between Time 1 and time 2, $t(36) = -0.99$, $p = 0.33$. This suggests that isolation scores were not affected immediately by attendance at the workshops, but had decreased in the three-month period following workshop attendance.

Intention to leave scores were tested for significant differences over time using post hoc paired samples t-tests. There was a statistically significant increase in intention to leave scores between Time 1 (M= 4.25, SD= 3.77) and Time 3 (M= 5.53, SD= 4.44), $t(35) = -2.26$, $p = 0.03$. The eta-squared statistic (0.13) indicated a moderate effect size. There was also a significant difference between intention to leave scores at Time 2 (M= 4.31, SD= 4.13) and Time 3 (M= 5.53, SD= 4.44), $t(35) = -2.25$, $p = 0.02$. The eta-squared statistic (0.15) indicated a large effect size. There was no significant difference between scores at Time 1 and Time 2, $t(35) = -0.12$, $p = 0.91$. This suggests that intention to leave scores did not alter during the workshops, but RPCNs expressed a greater intention to leave palliative care practice three months after the workshops were held. However, when the Bonferroni correction was used to adjust the p value for multiple t-tests, the p-value was reduced to 0.017. Consequently the differences between intention to leave scores should be viewed with caution.

An independent samples t-test was conducted to compare the differences between PIMS scores, isolation scores, job satisfaction scores and intention to leave scores for Group A and Group B at Time 3. There was no significant difference in scores for Group A and Group B for any variable. The results for these tests are presented in Table 32.

Table 32: Comparison of Professional Isolation Scores Between Group A and Group B

| Variable | | M | SD | t | df | p |
|--------------------------|-----------------|-------|-------|-------|-------|------|
| PIMS score | Group A (n= 36) | 34.81 | 9.82 | -1.19 | 63 | 0.24 |
| | Group B (n= 29) | 31.65 | 11.45 | | | |
| Isolation score | Group A (n= 36) | 22.92 | 5.69 | -0.56 | 47.13 | 0.59 |
| | Group B (n= 29) | 21.93 | 8.43 | | | |
| Job satisfaction score | Group A (n= 36) | 6.36 | 2.84 | -1.29 | 63 | 0.20 |
| | Group B (n= 29) | 5.45 | 2.84 | | | |
| Intention to leave score | Group A (n= 36) | 5.53 | 4.44 | -1.20 | 63 | 0.23 |
| | Group B (n= 29) | 4.27 | 3.84 | | | |

Burnout and the Effects of Availability of Educational Opportunities

A one-way repeated measures ANOVA was conducted to compare burnout scores of the participants in the educator workshops at Time 1 (prior to the workshop), Time 2 (immediately following the workshop) and at Time 3 (at the three-month follow-up period). The means and standard deviations are presented in Table 33. There was a statistically significant effect for time noted for emotional exhaustion (Wilks' Lambda = 0.74, F (2,33)= 5.64, p= 0.008, multivariate eta-squared = 0.25). There was also a statistically significant effect for time noted for personal accomplishment (Wilks' Lambda = 0.78, F (2,33)= 4.67, p= 0.016, multivariate eta-squared = 0.22). Depersonalisation did not show any statistically significant effect for time.

Post hoc testing was conducted using paired samples t-tests to examine the differences found in EE scores over time. There was a statistically significant decrease in EE from Time 1 (M= 19.17, SD= 6.63) to Time 2 (M= 17.46, SD= 7.83), t (34)= 2.42, p= 0.021. The eta-squared statistic (0.19) showed a large effect size. There was also a statistically significant, but unexpected, increase in EE scores between Time 2 (M= 17.46, SD= 7.83) and Time 3 (M= 20.61, SD= 9.53), t (35)= -2.81, p= 0.008.

Again, the effect size was large ($\eta^2 = 0.18$). There was no difference between reported EE at Time 1 and Time 3, $t(34) = -1.34, p = 0.19$. These results indicate that EE levels were reduced immediately following the workshops, but that this reduction was not sustained for the three-month period following the workshop.

Post hoc testing using a paired samples t-test revealed a significant difference between PA scores at Time 1 ($M = 30.86, SD = 4.94$) and Time 2 ($M = 32.60, SD = 5.08$), $t(34) = -2.36, p = 0.024$. The effect size was large ($\eta^2 = 0.14$). A significant difference was also found between PA scores at Time 1 ($M = 30.86, SD = 4.94$) and Time 3 ($M = 33.31, SD = 5.54$), $t(34) = -2.99, p = 0.005$. There was no difference between PA scores at Time 2 and Time 3, $t(35) = -1.08, p = 0.29$. Again, a large effect size was found ($\eta^2 = 0.21$). These findings show that PA scores were increased immediately following the workshop, and were maintained at this higher level for the three months following attendance at a palliative care educator workshop.

Table 34: Descriptive Statistics for MBI Subscale Scores for Time 1, Time 2 and Time 3

| | Time period | n | M | SD |
|----------|-------------------------------|----|-------|------|
| EE score | EE Time 1 (pre-intervention) | 35 | 19.17 | 6.63 |
| | EE Time 2 (post intervention) | 35 | 17.46 | 7.83 |
| | EE Time 3 (3 month follow-up) | 35 | 20.63 | 9.67 |
| PA score | PA Time 1 (pre-intervention) | 35 | 30.86 | 4.94 |
| | PA Time 2 (post intervention) | 35 | 32.60 | 5.08 |
| | PA Time 3 (3 month follow-up) | 35 | 33.46 | 5.54 |
| DP score | DP Time 1 (pre-intervention) | 35 | 4.23 | 3.43 |
| | DP Time 2 (post intervention) | 35 | 4.40 | 3.77 |
| | DP Time 3 (3 month follow-up) | 35 | 4.31 | 3.73 |

Table 34: Multivariate Test Statistics for MBI Subscale Scores at Time 1, Time 2 and Time 3

| MBI subscale | Wilks' Lambda | F | df | p | Eta ² |
|--------------|---------------|------|-------|------|------------------|
| EE | 0.74 | 5.64 | 2, 33 | 0.01 | 0.25 |
| PA | 0.78 | 4.67 | 2, 33 | 0.02 | 0.22 |
| DP | 0.99 | 0.09 | 2, 33 | 0.91 | 0.01 |

Independent samples t-tests were conducted to compare the MBI subscale scores of Group A and Group B. There was no significant difference between burnout scores for Group A and Group B. The test results are presented in Table 35.

Table 35: Comparison of MBI Subscale Scores for Group A and Group B

| Variable | | M | SD | t | df | p |
|----------|-----------------|-------|------|-------|----|------|
| EE score | Group A (n= 36) | 20.61 | 9.53 | -0.58 | 63 | 0.56 |
| | Group B (n= 29) | 19.31 | 8.36 | | | |
| DP score | Group A (n= 36) | 4.31 | 3.68 | 0.25 | 63 | 0.80 |
| | Group B (n= 28) | 4.52 | 2.92 | | | |
| PA score | Group A (n= 36) | 33.31 | 5.54 | -0.77 | 63 | 0.44 |
| | Group B (n= 25) | 32.17 | 6.23 | | | |

Testing a Conceptual Framework

The data collected during Phase II were used to test the conceptual framework developed for this project. All RPCNs who were surveyed in Phase II were included in the sample used to test the relationships between the variables in the conceptual framework. To determine whether there were relationships between professional isolation, burnout and confidence in palliative care delivery correlation coefficients were calculated. Multiple regression analyses were conducted to ascertain the effect of independent variables on the dependant variables of burnout, job satisfaction and intention to leave.

A Demographic Profile of RPCNs in Phase II

The sample used for the final analyses in Phase II is a combination of both Group A (RPCNs who participated in the palliative care educator workshops) and Group B (the comparison group). Testing showed no statistically significant differences between Group A and Group B scores for professional isolation, burnout and confidence in palliative care. Therefore, it was considered appropriate to combine these two groups for the final analysis. The total number of RPCNs in this sample was 65.

The profile of RCPNs who participated in Phase II of this study suggests that RPCNS in WA are likely to be over 40 years of age and have had about 20 years of experience as a nurse. Most RPCNs received their nursing qualifications in a hospital setting. RPCNs were most likely to work part-time in a generalist health care setting. An overview of the demographic profile of the Phase II sample is presented in Table 36.

RPCNs in this sample indicated that they had spent nearly half of their working life in the palliative care area. RPCNs were most likely to spend only one quarter of their work time providing palliative care, and to care for approximately 20 palliative care patients each year. Only a small number of RPCNs had completed further study in palliative care or a related area. An overview of the variables related to the palliative care nurse role are presented in Table 37.

Burnout and RPCNs

The Phase II scores from the three MBI subscales were used to test for relationships between reported levels of burnout and demographic variables. Burnout scores were also categorised as high, moderate or low levels of burnout using the cut-off points suggested by Maslach and Jackson (1986) (see Table 19, p.92). Burnout scores were calculated and descriptive statistics were used to develop an understanding of burnout in this sample of RPCNs.

Emotional Exhaustion and RPCNs

The EE scores from the three-month follow-up evaluation were calculated by summing the nine items from the MBI that make up the subscale, giving a possible range of scores from zero to 54. Lower numerical scores indicated a low level of emotional exhaustion. The RPCNs in this sample (n= 65) had EE scores that ranged from 0 to 50, with a mean EE score of 20.03 (SD= 8.98). A Kolmogorov-Smirnov test showed that the EE scores were normally distributed. Figure 12 shows the EE scores categorised as low, moderate or high emotional exhaustion. A total of 40% of

respondents (n= 26) reported moderate levels of emotional exhaustion, and 24.6% reported high levels.

Table 36: Demographic Characteristics of the Phase II Sample

| Demographic Variable | Categories | n | % |
|---|-----------------------------|----|------|
| Age (years) (n= 65) | <35 | 6 | 9.2 |
| | 36-45 | 24 | 37.0 |
| | 46-55 | 22 | 33.8 |
| | 56-65 | 13 | 20.0 |
| Years in nursing (n= 65) | <10 | 6 | 9.2 |
| | 11-20 | 28 | 43.1 |
| | >20 | 30 | 46.2 |
| | missing | 1 | 1.5 |
| Highest nursing qualification achieved (n= 45) | Hospital based diploma | 49 | 75.4 |
| | Undergraduate degree | 8 | 12.3 |
| | Post graduate qualification | 5 | 7.7 |
| | Other (not specified) | 3 | 4.6 |
| Employment hours (n= 45) | Full-time | 29 | 44.6 |
| | Part-time/casual | 33 | 50.8 |
| | Voluntary | 3 | 4.6 |
| Type of health service reported as main place of employment (n= 65) | General hospital | 29 | 44.6 |
| | Community nursing service | 17 | 26.2 |
| | Inpatient palliative care | 3 | 4.6 |
| | Community palliative care | 4 | 6.2 |
| | Other | 11 | 16.9 |
| | Missing | 1 | 1.5 |

Table 37: Frequency and Percentage Distribution of Variables Describing the Palliative Care Nurse Role

| Demographic Variable | Categories | n | % |
|--|-------------------|----------|----------|
| Years worked in palliative care setting (n= 65) | 0-5 | 19 | 29.2 |
| | 6-10 | 23 | 35.4 |
| | 11-15 | 10 | 15.4 |
| | >15 | 9 | 13.8 |
| | missing | 4 | 6.1 |
| Percentage of work time spent delivering palliative care (n= 45) | 0-24% | 39 | 60.0 |
| | 25-49% | 6 | 9.2 |
| | 50-74% | 6 | 9.2 |
| | 75-99% | 4 | 6.2 |
| | 100% | 9 | 13.8 |
| | As required | 1 | 1.5 |
| Number of palliative care patients cared for per year (n= 45) | 0-5 | 21 | 32.3 |
| | 6-10 | 10 | 15.4 |
| | 11-20 | 8 | 12.3 |
| | 21-50 | 9 | 13.8 |
| | >50 | 5 | 7.7 |
| | missing | 12 | 18.5 |
| Area of postgraduate study | Palliative care/ | 4 | 6.2 |
| | Oncology | | |
| | Other | 15 | 23.1 |
| | None | 46 | 70.8 |

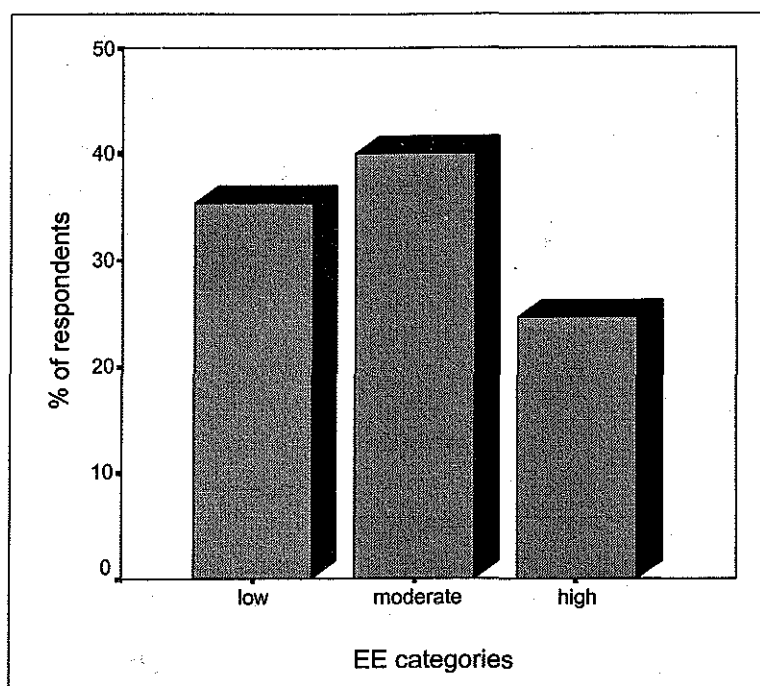


Figure 12: EE Scores Categorised as Low, Moderate or High (n= 65).

Depersonalisation and RPCNs

DP scores were calculated for all RPCN respondents. The five items for this subscale were summed, giving a potential range of scores from zero to thirty. Lower numerical scores indicated a low level of depersonalisation. The mean DP score was 4.40 (SD= 3.34), with a minimum score of zero and a maximum score of 16. A Kolmogorov-Smirnov score indicated that the DP scores for this sample were not normally distributed, showing a positively skewed distribution of scores with a clustering of lower DP scores. Figure 13 illustrates the distribution of DP scores in the categories of low, moderate and high DP. Only one respondent was categorised as having a high DP score, and 20% (n= 13) were considered moderate. More than 78% of respondents (n= 51) had low DP scores.

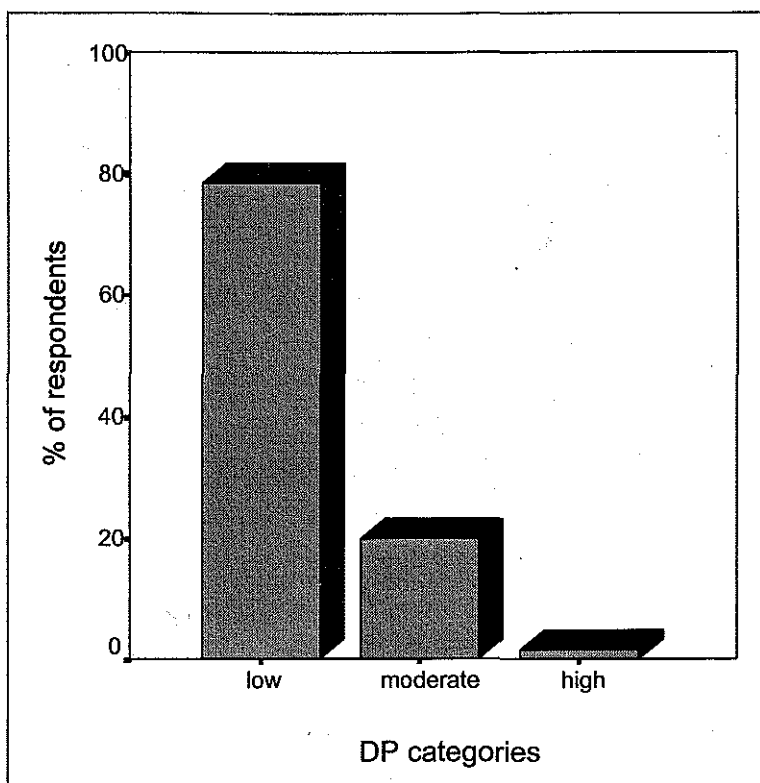


Figure 13: DP Scores Categorised as Low, Moderate or High (n= 65).

Personal Accomplishment and RPCNs

PA scores were calculated by summing the scores of the eight items in this subscale, giving a possible range of scores from 0 to 48. The PA subscale is scored in the opposite direction to the other two subscales of the MBI, meaning that lower numerical scores indicate higher levels of personal accomplishment. PA scores ranged from a minimum of 20 to a maximum of 48, with a mean score of 32.80 (SD= 5.84). This range of scores was normally distributed when tested using a Kolmogorov-Smirnov test. Figure 14 shows the PA scores as categorised by Maslach and Jackson (1986). Only 16.9% of respondents reported low levels of personal accomplishment in their palliative care role, with the remainder of the sample reporting either moderate or high levels of PA.

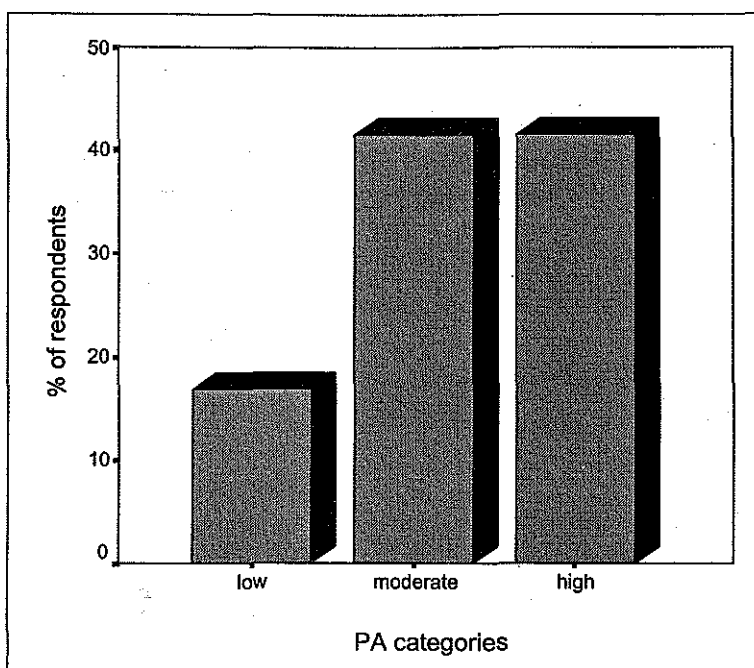


Figure 14: PA Scores Categorised as Low, Moderate or High (n= 65).

Burnout and Demographic Variables

MBI subscale scores were tested to determine if there was a relationship between burnout scores and the demographic variables collected from each respondent. Pearson's correlation coefficient was used to test for correlation between burnout scores and variables measured on an equal interval scale, including age of respondents, years that respondents had worked in the nursing profession, years that the respondent had worked in palliative care and the number of palliative care patients that the respondent cared for in a one-year period. No statistically significant correlation was found between any of these variables and respondents' burnout scores. Scores are presented in Table 38.

Demographic variables that were measured using a categorical level of measurement were tested for relationships with burnout scores using a Kruskal-Wallis one-way ANOVA test. Variables tested included employment status, the type of health service the respondent worked in, proportion of work time respondents spent working in palliative care and the geographical location of workplace. None of the relationships were statistically significant at the $p < 0.05$ level.

Table 38: Correlations Between MBI Subscale Scores and Demographic Variables Measured on an Ratio Level Scale

| Demographic variable | EE | DP | PA |
|---|-------|-------|-------|
| Age (years) (n= 65) | -0.17 | -0.11 | -0.16 |
| Years in nursing (n= 64) | 0.01 | -0.01 | -0.01 |
| Time worked in palliative care (years) (n= 61) | 0.03 | 0.01 | 0.12 |
| Number of palliative care patients cared for per year (n= 52) | 0.23 | 0.05 | 0.11 |

N.B. > 0.05 for all r values

Relationships between the scores for each of the MBI subscales was tested. There was a moderate positive correlation between EE scores and DP scores, $r = 0.33$, $p = 0.007$, indicating that as emotional exhaustion increased so too did depersonalisation of patients. There was also a moderate negative correlation between DP scores and PA scores, $r = -0.40$, $p = 0.001$, suggesting that RPCNs experiencing depersonalisation were less likely to report positive feelings of personal accomplishment. There was a small, non-significant correlation between EE and PA, $r = -0.24$, $p = 0.85$.

Professional Isolation and RPCNs

The overall PIMS score was calculated by summing the scores of the 14 items of the PIMS. The highest possible score was 84, the lowest was zero. Higher scores indicate higher levels of professional isolation. The minimum score was one and the maximum was 57, with a mean overall isolation score of 33.40 (SD= 10.61). When categorised as low, moderate and high, the overall isolation scores for this sample indicate that the majority of respondents (66.20%, $n = 43$) reported moderate levels of professional isolation. A Kolmogorov-Smirnov test indicated that the PIMS scores for this sample were normally distributed. Figure 15 shows the overall isolation scores as categorised.

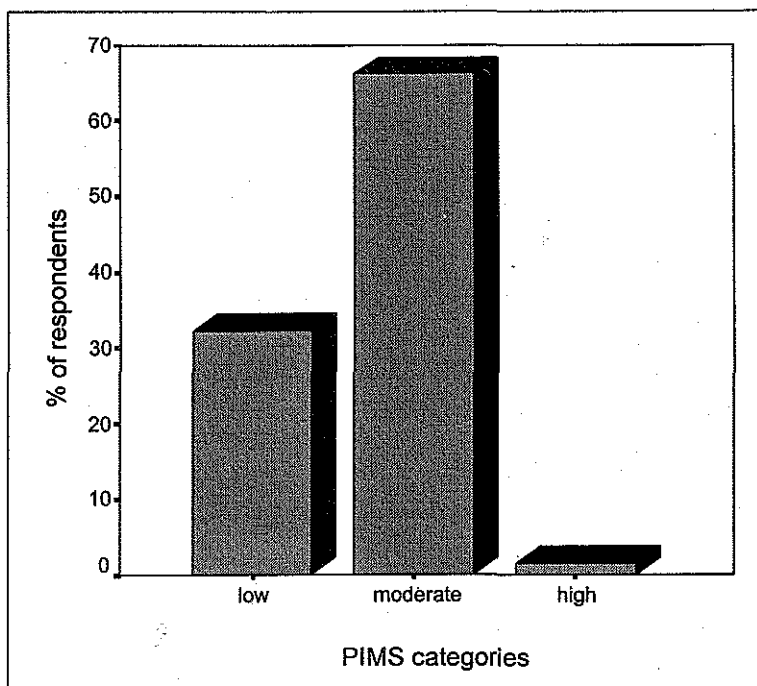


Figure 15: PIMS Scores Categorised as Low, Moderate or High (n=65)

The effects of demographic variables on the PIMS score was explored using a combination of parametric and non-parametric statistical tests, depending on the level of measurement used. A Pearson's correlation coefficient was calculated for continuous variables (age, number of years worked in the nursing profession and in palliative care and the number of palliative care patients cared for per year). The correlations were low; r-values ranged from 0.003 to -0.17. No correlations significant at the $p < 0.05$ levels were found.

Variables measured with a nominal scale (employment status, professional qualifications held, geographical location and proportion of time spent in palliative care) were compared using a Kruskal-Wallis one-way ANOVA test. No statistically significant relationships at the $p < 0.05$ level were found.

Isolation and RPCNs

An isolation score was calculated for each respondent by summing the eight items in the isolation subscale. Possible scores ranged from zero to 48. The mean score for the RPCNs in the follow-up evaluation sample was 22.48 (SD= 6.99), with a minimum score of one and a maximum score of 39. When these isolation scores were recoded into the categories of low, moderate and high, the majority of respondents, 81.54% (n= 53), were categorised as having moderate levels of isolation, and 4.61% (n= 3) were categorised as having high levels of isolation. Figure 16 illustrates the isolation scores of this sample by category. The isolation subscale scores were tested for

normality using a Kolmogorov-Smirnov test and were found to be normally distributed.

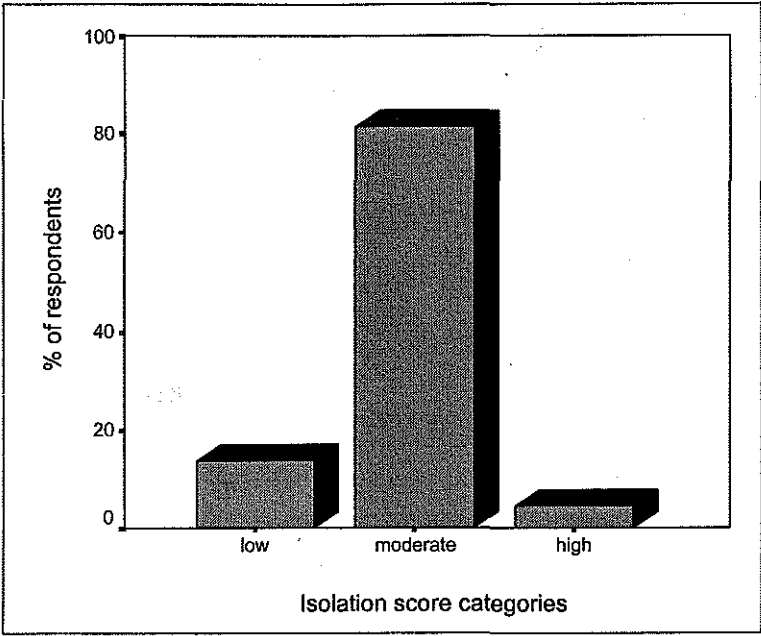


Figure 16: Isolation Scores Categorised as Low, Moderate or High (n=65)

Possible relationships between isolation scores and demographic variables were explored. Pearson’s correlation coefficients were calculated for continuous variables of age, number of years worked in the nursing profession and in palliative care and the number of palliative care patients cared for per year. The correlations were low, with r-values ranging from 0.008 to -0.18. No correlations significant at the $p < 0.05$ level were found. Nominal variables were compared to isolation scores using a Kruskal-Wallis test. These included employment status, professional qualifications held, geographical location and proportion of time spent in palliative care. No statistically significant relationships at the $p < 0.05$ level were found.

Job Satisfaction and RPCNs

The extent of respondents’ satisfaction with their current palliative care role was explored using the three-item job satisfaction subscale of the PIMS. The mean job satisfaction score for this sample was 5.95 (SD= 2.8) out of a possible total of 18. This subscale is scored in reverse; that is, high numerical scores indicate low levels of satisfaction with work. Therefore, a mean score of approximately six indicates moderate to high levels of job satisfaction among this group of RPCNs. Figure 17 shows the job satisfaction scores categorised as low, moderate or high. Only one respondent reported having low levels of job satisfaction, 41.54% (n= 27) reported

moderate levels of satisfaction at work, and the majority (56.92%, n= 37) reported high levels of job satisfaction. The job satisfaction subscale scores were tested for normality using a Kolmogorov-Smirnov test and were normally distributed.

Job satisfaction scores were also tested for relationships with demographic variables and access to education. A Pearson's correlation coefficient was calculated for continuous variables such as age, number of years worked in the nursing profession and in palliative care and the number of palliative care patients cared for in one year. No correlations significant at the $p < 0.05$ levels were found. Variables measured with a nominal scale were compared using a Kruskal-Wallis one-way ANOVA test. Variables that were compared to job satisfaction scores using a Kruskal-Wallis test were employment status, professional qualifications held, geographical location and proportion of time spent in palliative care. No statistically significant relationships at the $p < 0.05$ level were found.

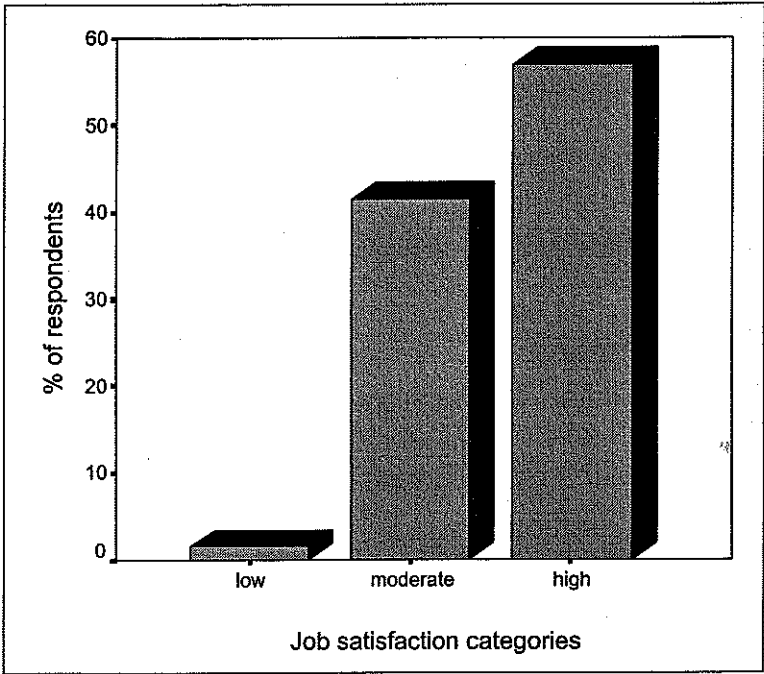


Figure 17: Job Satisfaction Scores Categorised as Low, Moderate or High (n= 65).

Intention to Leave and RPCNs

The final subscale of the PIMS is the intention to leave subscale. This three item subscale assesses the intention of the respondent to leave their palliative care role and seek work elsewhere. The mean intention to leave score for this sample of RPCNs was 4.97 (SD= 4.20) out of a possible score of 15. The minimum score was zero, and the maximum was 15. The majority of respondents, nearly 68% (n= 44) had low intention to leave scores, as illustrated in Figure 18. A Kolmogorov-Smirnov test was used to assess the normality of the intention to leave scores for this sample of RPCNs, and scores were found to be normally distributed.

As with other scores obtained from the PIMS, relationships between the intention to leave score and demographic variables of the RPCNs in this sample were explored. No statistically significant relationships at a $p < 0.05$ level were found with any demographic variable.

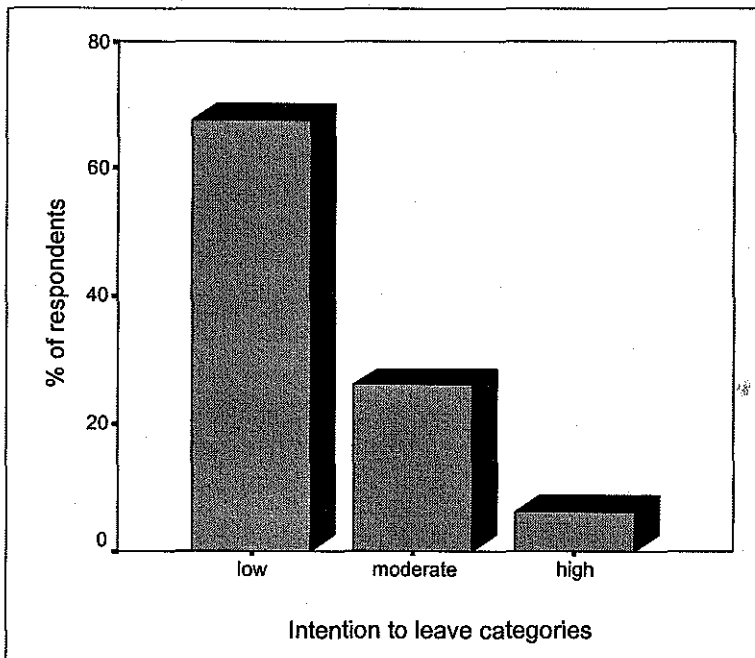


Figure 18: Intention to Leave Scores Categorised as Low, Moderate or High (n=65)

CPCM Scores and RPCNs

A CPCM score for each respondent was calculated by summing the scores of the 12 items in the scale, with possible scores ranging from 0 to 60. The CPCM score gives an indication of how confident RPCNs feel about providing clinical palliative care. The CPCM scores for this sample ranged from 26 to 55, with a mean score of 41.43 (SD=

6.36). The CPCM scores were normally distributed when tested using a Kolmogorov-Smirnov test.

CPCM scores were categorised as low, moderate or high levels of confidence by dividing the scores into three groups, with cut-offs at 36 for low and 48 for moderate. All RPCNs in this sample reported either moderate or high levels of confidence in palliative care provision (see Figure 19).

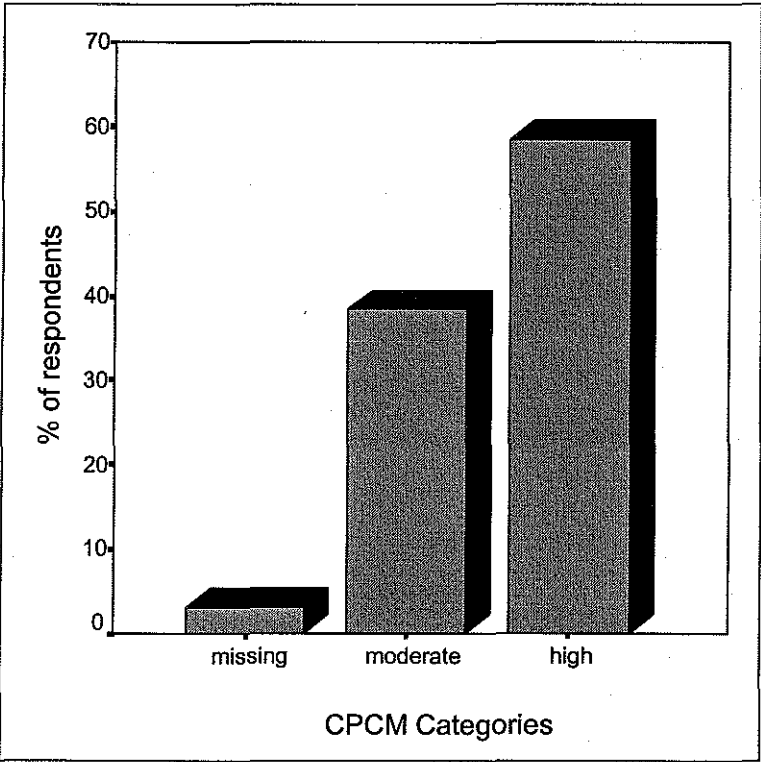


Figure 19: CPCM Scores Categorised as Low, Moderate or High (n= 65)
Correlations with CPCM

The relationship between clinical confidence and professional isolation and burnout was examined using a Pearson’s correlation coefficient. The only statistically significant correlation found was between CPCM and the MBI subscale PA. The correlation was moderate, $r= 0.372$, $p= 0.002$, suggesting that as RPCNs feel increased confidence in providing palliative care, feelings of personal accomplishment in the workplace are also increased. No other subscale of either the PIMS or the MBI had any statistically significant correlation with the CPCM score, and the r values were low, ranging from -0.001 to -0.016 .

Correlations with Professional Isolation

For the purposes of this study two sets of correlation coefficients were calculated for isolation scores obtained using the PIMS. Correlations between scores were calculated to demonstrate relationships between the three subscales and the overall PIMS score. Correlation coefficients were also calculated for the four isolation scores and the CPCM and MBI scores, to detect any possible relationships between these variables.

Pearson correlation coefficients were calculated to ascertain if there was a clear relationship between the three PIMS subscales. Table 39 shows the correlation between each of the subscale scores. Strong correlations were found between job satisfaction scores and both isolation scores and intention to leave scores. Both were statistically significant to the $p = 0.000$ level. A small correlation was noted between isolation scores and intention to leave scores; however, this was not statistically significant at the $p < 0.05$ level. As expected the overall PIMS score had a high correlation with all subscales.

Table 39: Correlations Between PIMS Subscales

| Subscale | Isolation | Job satisfaction | Intention to leave |
|--------------------|-----------|------------------|--------------------|
| Overall PIMS | 0.85* | 0.76* | 0.60* |
| Isolation | -- | 0.49* | 0.14** |
| Job satisfaction | | -- | 0.42* |
| Intention to leave | | | -- |

* $p = 0.000$

** $p = 0.27$

The relationship between PIMS scores and burnout scores as measured on the three subscales of the MBI were also considered. It was hypothesised that there would be a relationship between high levels of professional isolation and high burnout scores, and decreased job satisfaction and intention to leave. The correlation between these variables was calculated and is presented in Table 40. EE scores had high or moderate correlations with the PIMS score and all PIMS subscale scores. The MBI subscales PA and DP had only small correlations with professional isolation scores.

Predicting RPCNs Most Likely to Suffer Burnout

A standard multiple regression technique was used to determine the relationship between the dependent variable of emotional exhaustion (as measured by the MBI) and the independent variables of the isolation score and job satisfaction score. The EE score was chosen to represent levels of burnout because in this study the EE had the strongest correlation with other variables. The overall PIMS score was not included as an independent variable because an independent variable that is a combination of other independent variables is not desirable for use in multiple regression techniques (Pallant, 2001).

Table 40: Correlations Between PIMS Scores and MBI Scores

| Subscale | MBI subscales | | |
|--------------------|---------------|----------|---------|
| | EE | PA | DP |
| PIMS | 0.67 | -0.25 | 0.21 |
| | p= 0.000 | p= 0.04 | p= 0.09 |
| Isolation | 0.47 | -0.19 | 0.14 |
| | p= 0.000 | p= 0.14 | p= 0.28 |
| Job satisfaction | 0.52 | -0.28 | 0.22 |
| | p= 0.000 | p= 0.024 | p= 0.08 |
| Intention to leave | 0.55 | -0.14 | 0.16 |
| | p= 0.000 | p= 0.28 | p= 0.20 |

Prior to completing the analysis, the major assumptions made in multiple regression analysis were checked in the data. The data met all assumptions of appropriate sample size, normality, linearity and homoscedasticity. Multicollinearity and singularity in relationships between the dependant variable and independent variables were not present. Therefore a multiple regression analysis of the relationships between emotional exhaustion and professional isolation was considered appropriate.

The isolation score and job satisfaction score accounted for 31.1% of variance in EE scores (adjusted $R^2 = 0.31$, $p < 0.000$). Job satisfaction accounted for the greatest variance in EE scores, and isolation scores also contributed. Table 41 presents a summary of this multiple regression analysis.

Table 41: Summary of Standard Multiple Regression Analysis for Variables Predicting Emotional Exhaustion (N= 65)

| Independent Variable | B | Standard Error of B | Beta | Significance |
|----------------------|------|---------------------|------|--------------|
| Isolation | 4.60 | 0.15 | 0.29 | 0.017 |
| Job satisfaction | 1.18 | 0.38 | 0.37 | 0.003 |

Predicting RPCNs Most Likely to Suffer Decreased Job Satisfaction

The effect of burnout and isolation on job satisfaction was tested using a multiple regression technique. The EE and PA scores of the MBI were used in this model, DP was not included because it did not show a strong correlation with job satisfaction. The isolation subscale score from the PIMS was used to complete this regression model. Prior to completing the analysis the major assumptions made in multiple regression analysis were checked in the data. The data met all assumptions required of a multiple regression analysis.

The EE, PA and isolation scores accounted for 36.4% of variance in job satisfaction scores (adjusted $R^2 = 0.39$, $p < 0.000$). EE accounted for the greatest variance in job satisfaction scores. Table 42 presents a summary of this multiple regression analysis.

Table 42: Summary of Standard Multiple Regression Analysis for Variables Predicting Job Satisfaction (N= 65)

| Independent Variable | B | Standard Error of B | Beta | Significance |
|----------------------|-------|---------------------|-------|--------------|
| EE | 0.12 | 0.36 | 0.38 | 0.001 |
| PA | -0.11 | 0.05 | -0.22 | 0.035 |
| Isolation | 4.60 | 0.15 | 0.29 | 0.017 |

Predicting RPCNs Who Intend to Leave Palliative Care Practice

The effect of burnout, isolation and job satisfaction on RPCNs' intention to leave palliative care was tested, also using a multiple regression technique. Only the EE score was used as an indicator of burnout; DP and PA did not show a strong correlation with intention to leave scores. The isolation subscale score and the job satisfaction

scores were also used in this regression model. Prior to completing the analysis the major assumptions made in multiple regression analysis were checked in the data. The data met all assumptions required of a multiple regression analysis.

The EE, isolation subscale score and job satisfaction score accounted for 33.5% of variance in intention to leave palliative care (adjusted $R^2 = 0.33$, $p < 0.000$). EE accounted for the greatest variance in job satisfaction scores, with professional isolation and job satisfaction contributing a small but significant amount. Table 43 presents a summary of this multiple regression analysis.

Table 43: Summary of Standard Multiple Regression Analysis for Variables Predicting Intention to Leave (N= 65)

| Independent Variable | B | Standard Error of B | Beta | Significance |
|----------------------|-------|---------------------|-------|--------------|
| EE | 0.24 | 0.06 | 0.52 | 0.000 |
| Isolation | -0.15 | 0.07 | -0.25 | 0.05 |
| Job satisfaction | 0.40 | 0.19 | 0.27 | 0.03 |

Conclusion

Phase II of this project has examined the relationships between burnout, professional isolation, job satisfaction and intention to leave palliative care. The analysis of data collected from a sample of 65 Western Australian RPCNs found the following:

- Overall, participants expressed satisfaction with both the palliative care educator workshop that they attended, and the *Over Handover* package
- CPCM scores increased significantly over time. Although no increase in CPCM scores was found immediately after attendance at a palliative care educator workshop, RPCNs reported significantly increased CPCM scores at the three month follow-up test
- Professional isolation decreased over time, and job satisfaction increased. However, RPCNs reported a greater intention to leave palliative care at Time 3 than they had at Time 1
- RPCNs reported less emotional exhaustion at the conclusion of the educator workshop (Time 2), but EE scores had increased after three months (Time 3)

and were not significantly different to EE scores prior to workshop attendance

- Feelings of personal accomplishment decreased over the period of this study
- Reported levels of depersonalisation did not change throughout the study
- No significant differences between the professional isolation, burnout and job satisfaction scores of Group A and Group B were found, and no difference between the intention to leave scores of each group were found
- No demographic variables were found to have a significant correlation with professional isolation, burnout, job satisfaction or intention to leave
- Nearly 65% of RPCNs reported moderate or high levels of EE. Paradoxically, 78% reported low levels of DP and 83% had moderate or high levels of PA
- More than 86% of the RPCNs in this sample reported moderate to high levels of professional isolation; however, 64 of 65 respondents (98%) reported moderate to high levels of job satisfaction, and 68% had little intention of leaving palliative care practice
- All RPCNs in this sample had moderate to high CPCM scores. RPCNs with higher CPCM scores were also more likely to report feeling higher levels of PA
- Professional isolation was moderately negatively correlated with job satisfaction, suggesting that as professional isolation increased job satisfaction decreased
- Professional isolation was not significantly correlated with intention to leave palliative care
- RPCNs who reported lower levels of job satisfaction reported greater intention to leave palliative care
- The EE scores of this sample were moderately correlated with professional isolation and intention to leave palliative care. A moderate negative correlation was found between professional isolation and job satisfaction
- Reported levels of PA had a weak but significant correlation with job satisfaction

- DP had a weak but significant negative correlation with job satisfaction
- Low levels of job satisfaction and high levels of professional isolation are partly responsible for high levels of EE
- High EE scores are partly responsible for decreased job satisfaction and decreased PA. High levels of professional isolation also have a small but significant negative impact on job satisfaction
- High levels of EE and professional isolation, and low levels of job satisfaction are partly responsible for increased intention to leave palliative care.

CHAPTER SEVEN

PHASE II DISCUSSION

Introduction

This chapter will discuss the relevance of the findings of Phase II of this study. In particular, the findings will be reviewed in light of other literature relating to the evaluation of continuing education for nurses. The impact of education on self-reported confidence will be examined, as well as the impact of education on burnout, professional isolation, job satisfaction and the intention to leave position. Also, participant satisfaction with the intervention provided will be discussed. The results of this phase will also be considered in the context of the conceptual framework developed for this study.

RPCNs: Building a Profile

The demographic information collected in Phase I and Phase II have assisted in developing a profile of RPCNs in WA. The data from this study suggests that RPCNs in WA were likely to be female, over 40 years of age, have about 20 years of experience as a nurse, with nearly half of that time spent working in the palliative care field. RPCNs were most likely to spend only one quarter of their time providing palliative care, and to care for approximately 20 palliative care patients each year. Most RPCNs received their nursing qualifications in a hospital setting, and only a small number had completed further study in the palliative care area.

The demographic profile of RPCNs in this study was similar to data collected by Farrell (1998), who conducted an Australia wide survey of palliative care professionals to determine their education needs. Farrell described palliative care professionals (including nurses, doctors and allied health professionals) as being predominantly female, Anglo-Saxon, aged over 40 years, and having had less than 10 years experience in palliative care. The comparison of demographic characteristics described by Farrell and those of RPCNs in this study suggested that, in general, nurses providing palliative care in rural settings are similar to palliative care practitioners in general.

A major difference between this sample of RPCNs and a wider Australian study was that 60% of palliative care nurses (n= 627) in Farrell's (1998) study had completed

an undergraduate degree as their highest qualification, compared to only 12% of RPCNs in this study. This may reflect the difficulties rural nurses face accessing further education, making it difficult to upgrade hospital qualifications to a nursing degree. Francis et al. (2001) describe a number of difficulties experienced by rural nurses who wish to upgrade their qualifications, including financial difficulties associated with obtaining education, difficulty obtaining time off work to attend classes, limited employer support, family commitments and difficulty accessing appropriate courses.

The demographic characteristics of this sample of RPCNs are similar to the total Australian nursing workforce, as described by the AIHW (2003). The AIHW found that nurses working in Australia were likely to be aged 42, and more than 50% of them are likely to work part-time. The AIHW suggests that the aging nursing workforce is problematic in that it will be difficult to replace older nurses as they retire because younger nurses are fewer in number. The mean age of RPCNs suggests that there may also be a shortage of nurses to replace RPCNs who retire at age 55 and over. However, the retention of RPCNs in the short term may be of more immediate concern than ensuring replacement because the current aging population of RPCNs retires in 10 to 20 years. More than 30% of RPCNs who participated in Phase II of this study indicated a moderate or high intention to leave their current palliative care role. This suggests that the focus of workforce planning in rural palliative care practice should be on retention of nurses currently working in rural palliative care.

The location of RPCNs in this study suggests that RPCNs are most likely to be found in the more populous coastal areas of WA. This is possibly because coastal areas of the state are attracting an increasing number of retirees (ABS, 2003); the aging populations are more likely to require treatment for terminal illnesses than rural communities with a younger population. Statistical analysis did not show any relationship between the geographic location of RPCNs and levels of professional isolation, burnout, job satisfaction or intention to leave. However, the small sample size for this study made meaningful correlation of these variables difficult, and so until more information is available, all RPCNs, regardless of the geographical location in which they practice, should be considered at risk.

Participants in this study reported that the length of time they had worked in palliative care was between three months and 28 years. The first palliative care service in WA was founded in 1984, and the first palliative care service in rural WA began in 1990. Therefore, some respondents indicated that they were providing palliative care 12

years before the first recognised palliative care service began in WA, and 18 years before palliative care services moved into rural areas of WA. Working with death and dying is likely to have been a consistent part of a rural nurses' experience, and nurses who have been working in a rural practice setting for a long time may have had considerable experience in providing end-of-life care. It is likely that the participants in this study view palliative care practice from the perspective of a generalist rural nurse. For these nurses it is possible that palliative care is not thought of as a specialist nursing field, but rather a crucial part of their generalist role. Recent palliative care literature has begun to elucidate differences between specialist palliative care and the "palliative approach" to care provision (Australian Government Department of Health and Aging, 2004), describing a palliative approach as adopting the philosophies and principles of palliative care in a setting where specialist palliative care is unavailable, or only available infrequently. It is possible that RPCNs in this study have been describing use of a palliative approach to end-of-life care when having extensive experience in palliative care. In a rural generalist health care setting, adopting a palliative approach to care provision may be more appropriate than providing specialist palliative care. The rural communities' understanding of palliative care will have implications for people providing education for RPCNs, because education that assists these nurses in adopting palliative care philosophies, as part of their generalist practice, will be more helpful than education about specialist services. As well, it may be timely to explore models of care that facilitate adopting a palliative approach to care provision in rural settings, rather than continuing to promote palliative care as a specialty area in rural health care.

More than 60% of study participants worked in palliative care for less than one half of their time at work. Despite palliative care being a relatively minor part of their total workload, participants described their palliative care role as demanding, particularly of time. It is possible that role conflict could occur for RPCNs when the demands of their palliative care role impinge on other duties, and when other nursing work precludes the completion of palliative care duties. Rizzo, House and Lirtzman (1970) described role conflict as conflict that results when a person has several different roles that require different or incompatible behaviours. Role conflict has been shown to result in less job satisfaction and increased intention to leave (Ernst, 1995; Pilkington & Wood, 1986). It is possible that RPCNs experience difficulties moving between palliative care provision and other nursing roles. Nurses in McConigley's (1998) study reported finding it difficult to move between busy, acute clinical areas to the slower and more deliberate pace of palliative care.

A study of rural midwives in South Australia found that more than 56% of the midwives (n= 290) spent less than one quarter of their work time providing midwifery services (Kearns, 1997). The midwives identified the possibility of decreased competence in the midwifery area, due to limited time spent practising in this area, as one of their worst fears. This highlights the need for rural nurses to have access to regular updates and simulated training exercises to maintain competence in areas of nursing speciality that are not used on a regular basis.

Evaluating the Effectiveness of an Education Intervention

Participants in the educator workshops all expressed satisfaction with the workshops, and with the amount that they had learned. Similarly, participants felt that the *Over Handover* package was useful for them in their clinical practice, and most had used some of the package at the time of the final evaluation, three months after the completion of the workshops. Summative evaluations such as this are helpful for determining what participants thought of an education session, and suggestions offered for improvement can be helpful in revising course style or content to make it more relevant to future attendees (Jeffreys, Massoni, O'Donnell & Smolaka, 1997).

Results of student satisfaction surveys should be viewed with caution (Crow, 2004). Results can be reflective of participants' thoughts and feelings immediately after completion of a course or session, and as such they have not had time to reflect on the presentation. Furthermore, an immediate evaluation does not take into account the usefulness of the education in the future; the relevance of education may not become apparent for some time after the information has been delivered. Finally, student satisfaction surveys can be affected by social desirability. That is, students who have enjoyed a course and liked the presenter may be loath to write comments that presenters may consider negative or unpleasant. Therefore, it is also important to conduct objective testing of the impact of education. Bramley (1991) asserts that education should be evaluated by examining whether or not the objectives of the session have been met.

The results of this study have been evaluated in reference to the objectives of the intervention. That is, data were analysed to determine if attendance of an education workshop would have an effect on self-reported levels of professional isolation, burnout, job satisfaction and intention to leave. The findings of this phase showed that RPCNs who attended a workshop had lower levels of professional isolation and higher

levels of job satisfaction after attending a workshop. Unexpectedly, after the workshops, RPCNs reported higher emotional exhaustion and intention to leave.

Several authors have reported evaluating education programmes in relation to the stated objectives of the programme. Changes in knowledge, skills, behaviours and attitudinal changes have been reported following provision of education. Reding, Huber and Lappe (1995) reported that rural nurses' (n= 55) knowledge of breast self-examination techniques and breast cancer care had improved following attendance at a half-day seminar held in selected rural locations. Knowledge and skill in breast cancer test scores showed an increase in the mean test score from 65% prior to the seminar, to 89% immediately after the seminar. Final testing six months after the seminars showed that test results remained high, with a reported mean test score of 79%.

Kristjanson et al. (1997) demonstrated that a palliative care education course could improve participants' knowledge of palliative care, change their attitude to providing care for the dying, and change clinical care delivery. The authors used a multi-faceted evaluation technique, which involved testing knowledge and attitudes relating to palliative care, and conducting a chart audit to examine changes in practice after attendance of the course. The study demonstrated that a palliative care course could increase participants' knowledge, improve their attitude to palliative care provision, and change their clinical practice. The study also showed that these changes were retained three months after the completion of the course. Other studies have demonstrated similar findings. A study that evaluated a cancer pain management course for rural nurses found that nurses reported changing their clinical practice after attending the course (Dalton et al., 1995). An audit of patient charts confirmed that nurses who attended the course had improved their documentation skills, and were documenting more incidences of pain assessment and improved pain management strategies.

Rushton et al. (1997) found that attendance at a one-day seminar about cancer care increased participants' knowledge, and that knowledge was retained at the follow-up testing two months after the seminar. Nurses attending the seminar also reported disseminating their acquired knowledge to colleagues. This flow on effect may have resulted in an increase in knowledge for a number of nurses who had not attended a seminar. This study was designed specifically to assist RPCNs in disseminating palliative care knowledge, and 75% reported having used the information provided to them for the purpose of providing education to others. The wide-ranging effects of

attendance at an education course have not been studied, but dissemination of information by attendees could greatly amplify the effect of increasing the knowledge of individual RPCNS.

Less common in nursing literature is testing for specific changes related to the learning objectives of the education session. Hinds et al. (1994) measured grief experiences and stress levels for two groups of paediatric oncology nurses, both before and after a workshop on grief in the workplace. The authors found no significant differences in the grief experience scores of nurses following attendance at the workshops. However, the more experienced group of paediatric oncology nurses showed increased stress scores after attendance at the workshop ($t=2.4$, $p=0.02$). The authors suggested that the workshop might have precipitated increased stress because issues raised during the workshop were not resolved in the time available during the session. It is therefore important that the negative effects of education sessions not be down-played. Interactive education sessions can be a forum for the exchange of important information, but can also be stressful for participants because sensitive issues are raised that require attention. RPCNs may not have regular opportunities to discuss issues with their peers, therefore, education sessions may offer RPCNs an important opportunity to debrief.

Self-Reported Confidence After Attendance at an Education Session

Examination of the data collected in Phase II showed that RPCNs' self-reported confidence in providing palliative care had increased three months after attending a palliative care educator workshop. This is consistent with other studies which have demonstrated an increase in confidence following the provision of education. MacLeod, Nash and Charny (1994) measured the confidence of medical practitioners before and after a workshop about palliative care. The authors used a five-point visual analogue scale to assess how confident the participants felt with seven aspects of palliative care provision. The authors noted an increase in confidence after the workshop was completed, which continued for a period of four to six months, when a final evaluation was completed. Another study by Parsons (1999) showed that nurses ($n=87$) who had attended a 90-minute education session about delegation of duties showed significantly higher confidence in their delegation skills at the completion of the session and after a three month interval ($t=-2.76$, $p=0.0072$). A control group who did not attend the education sessions did not show an increase in confidence over time. It is

likely that education that increases participants' knowledge and skills can lead to increased confidence in clinical practice which is maintained over a period of time.

A study by Bullock, Libbus, Lewis and Gayer (2002) compared how competent a group of child health nurses ($n = 173$) reported being after attending a series of education courses, compared with child health nurses who had not attended these courses ($n = 388$). After each of the six courses, nurses who had attended a course had a statistically significant higher competence rating than those who had not attended ($p = 0.001$). The authors caution that although the nurses perceived that they were more competent in the areas covered by education courses, the study did not measure changes in practice, and as such the changes noted might have reflected increasing confidence in care provision, rather than improved patient care. Similarly, in this study nurses reported being more confident in their provision of palliative care, but changes to their clinical practice were not examined. Future research that focuses on the relationship between perceived confidence and improved care would help elucidate the effectiveness of an education intervention.

Professional Isolation After Attendance at an Education Session

This evaluation showed that an education intervention can reduce feelings of isolation in a group of otherwise isolated nurses. This group of RPCNs reported significantly lower levels of professional isolation immediately after attendance at a workshop, and another significant decrease was noted at the final test three months after the workshop. This study has demonstrated the relevance of providing face-to-face education sessions for rural health professions.

The findings of this study are consistent with those of Dussault and Barnett (1996) who found that participation in a six-month leadership course reduced reported levels of loneliness by school principals ($t(40) = 2.72, p < 0.01$). The authors found that participants did not report any significant increase in contact with colleagues following the course, and suggested that the decrease in reported levels of loneliness were due in part to the structure of the course, which involved being shadowed by a peer educator and participating in reflective interviews about work performance. It is possible that interaction with peers that allows for exchange of ideas and reflection on personal practice may be sufficient to reduce feelings of isolation in the workplace.

The finding that attendance at an education session may reduce levels of professional isolation is an important consideration for educators when planning education for isolated learners. Further research to determine if a similar reduction in

professional isolation would result from use of technologies, such as Internet based courses, would be useful; technologies such as the Internet and videoconferencing offer economical and easily accessible methods of providing education and support to geographically isolated health professionals.

Burnout After Attendance at an Education Session

This study found that RPCNs who had attended an educator workshop showed decreased burnout scores (in particular emotional exhaustion scores) at the end of the session, however, after three months their EE scores had once again increased to levels similar to those prior to course attendance. It is possible that attendance at a workshop caused an increase in reported feelings of burnout by RPCNs, because there was increased pressure for RPCNs to act in an expert role following attendance at the workshop. However, it is more likely that the return of EE scores to pre-workshop levels is reflect a number of compounding workplace factors.

A study of the effect of a workshop about elder abuse and dementia sufferers examined the impact of course attendance on the burnout scores of people working in the aged care setting (n= 64) (Richardson, Kitchen & Livingston, 2002). The authors reported no changes in burnout scores, measured using the MBI, immediately after the completion of the education. It is possible that participation in a one-off education session has little or no effect on a person's reported burnout scores. Burnout is most likely to be the effect of a number of factors that build up over a period of time (Maslach & Jackson, 1986) and may therefore be difficult to change with a sole intervention. However, the decrease in EE noted in this study immediately after attendance at a workshop is significant, in that attendance of education sessions may offer some short-term benefit to RPCNs. The opportunity to network and debrief with professional peers, in a semi-structured format such as an interactive workshop, may decrease feelings of emotional exhaustion, and that more regular contact with peers may assist in maintaining these lower levels. It would be helpful to further explore the effects of regular interaction for otherwise isolated practitioners, to determine if they would assist in ameliorating high levels of burnout.

Intention to Leave After Attendance at an Education Session

The findings of this phase of the study showed that RPCNs' intention to leave their current palliative care position did not increase significantly immediately after attendance at a workshop, but was significantly increased three months later. This finding was unexpected; it was hypothesised that after receiving a copy of *Over*

Handover, a resource provided to assist RPCNs in their role as a palliative care educator, that intention to leave scores would decrease. However, the increase in intention to leave is unlikely to be related directly to attendance at a one-day workshop. As with burnout, it is likely that a number of compounding workplace issues that cause RPCNs to consider leaving.

In summary, the findings of this study suggest that an education intervention can have a positive impact on levels of confidence and job satisfaction, and decrease professional isolation, burnout and participants' intentions to leave their positions. However, results from this study are presented with caution, because although there were statistically significant differences noted in the scores of RPCNs following attendance at a workshop, there were no significant differences between the group who had attended the workshops and the group of RPCNs who had not attended, at the three-month evaluation time. It is therefore possible that changes reported are reflective of other workplace changes. The period during which this project was completed was a time of rapid expansion and change to rural palliative care services in Western Australia. Many new services were founded, and services and resources that directly targeted rural palliative care providers were implemented. Further examination of the benefits of similar education interventions would assist in verifying the usefulness of education sessions to isolated rural practitioners.

Examining Issues in Rural Palliative Care

This research examined issues that an extensive review of the professional literature suggested may be of relevance to rural palliative care nurses. In particular, the issues of professional isolation, burnout, job satisfaction and intention to leave palliative care practice were examined. This study found that RPCNs in WA were likely to report being moderately professionally isolated, to suffer from moderate amounts of emotional exhaustion, but to report relatively high levels of personal accomplishment and job satisfaction in their profession. A small but essential amount of RPCNs reported intending to leave palliative care practice. These findings were examined in the context of the current literature.

Burnout and RPCNs

The literature relating to burnout in palliative care and rural nursing settings illustrates that the levels of burnout reported by RPCNs in this study are similar to those in other palliative care (Payne, 2001) and oncology settings (Molassiotis & Haberman, 1996) and also to nurses working in the specialty area of rural psychiatric nursing

(Pinikahana & Happell, 2004). Table 44 shows the mean burnout scores of nurses for each of the three subscales of the MBI, compared to the results of other studies in related practice settings such as rural health or oncology/palliative care.

Table 44: Comparison of MBI Subscale Scores for Four Studies.

| Investigators | Setting | n | EE | DP | PA |
|-------------------------------|---|---------------|-------|------|-------|
| Present study | Rural palliative care | Phase I = 40 | 19.50 | 4.00 | 33.50 |
| | | Phase II = 65 | 20.03 | 4.40 | 32.80 |
| Molassiotis & Haberman (1996) | Bone marrow transplantation nursing (USA) | 40 | 19.90 | 7.60 | 37.30 |
| Payne (2001) | Hospice (UK) | 89 | 17.19 | 3.91 | 35.70 |
| Pinikahana & Happell (2004) | Rural psychiatric nursing (Australia) | 136 | 15.90 | 5.70 | 37.20 |

When considering the MBI subscale of EE, RPCNs may be at risk of suffering higher levels of EE than nurses in most other practice settings. Although the mean EE scores in each of the studies was similar, in Phase II of this study 16 of the total 65 RPCNs (24.6%) reported high levels of EE. Payne (2001) reported that only 16% of hospice nurses in a British sample were experiencing high EE levels. Pinikahana and Happell (2004) reported that only 10.4% of a sample of rural psychiatric nurses (n= 139) experienced high EE, and Molassiotis and Haberman (1996) also reported that only 10% of a small sample (n= 40) of nurses working in bone marrow transplantation units experienced high levels of EE. Barrett and Yates (2002) report that 37% of a sample of nurses working in oncology/haematology settings in Queensland (Australia) as suffering from high levels EE. However, mean scores for each of the MBI subscales have not been reported, so comparison of RPCNs with nurses in this study of oncology/haematology nurses is more difficult.

Levels of DP amongst RPCNs was comparable with Payne's (2001) study of hospice nurses, and lower than DP levels of nurses in other disciplines such as psychiatric nursing (Pinikahana & Happell, 2004) and bone marrow transplantation nurses (Molassiotis & Haberman, 1996). It is possible that RPCNs experience less DP because palliative care can be an emotionally charged discipline, where strong bonds are formed with patients and families, often over longer periods of time than is common in acute care settings (Webster & Kristjanson, 2002). Palliative care is also often less reliant on the use of technical equipment that may distance nurses from their patients, as may be experienced in acute oncology settings such as bone marrow transplantation. Furthermore, nurses in rural settings will often have a connection with a patient that is separate from their professional role; RPCNs may know their patients socially, or know families or friends of their patients (McConigley, 1998). These factors, unique to rural palliative care practice, may explain why RPCNs do not view their patients in an impersonal manner, despite suffering from high levels of EE.

Compared to other samples, RPCNs appear to be feeling less PA in their professional role, although the difference in mean scores is only slight. Despite this, more than 80% of respondents in both Phase I and II of this study reported moderate or high levels of PA, suggesting that while the RPCN role can be emotionally draining, nurses still obtain feelings of personal accomplishment from their work. McConigley (1998) found that providing care for patients and families sustained RPCNs in an otherwise stressful professional role. It is possible that the positive aspects of providing palliative care help RPCNs to feel a sense of accomplishment in their profession, and offset some of the emotional exhaustion reported.

Professional Isolation and RPCNs

The available literature regarding professional isolation describes this construct in the context of working alone (Peternelj-Taylor & Johnson, 1995; Solomon et al., 2001), associated with a lack of professional development opportunities (Trollor, 1995), or linked to limited opportunities to access collegial support (Warren, 1995). The literature regarding RPCNs describe them as often having solo practitioner status and having limited support in the workplace, and therefore it is likely that this group are at risk of being professionally isolated. The RPCNs surveyed in this study indicated moderate levels of professional isolation, with a mean PIMS score of 33.4 in Phase II, out of a possible score of 80. No research was found that quantified levels of professional isolation in a nursing population, therefore, it is not possible to compare professional isolation experienced by RPCNs to nurses in other practice disciplines.

A study by and Dussault et al. (1999) described classroom teachers in the province of Quebec, Canada, as having moderate levels of professional isolation, which is similar to the findings for RPCNs in this study. However, Dussault et al. used the UCLA Loneliness Scale to measure professional isolation, and therefore results cannot be compared directly with this study, which uses the newly developed PIMS.

Only a few RPCNs in this study reported high levels of professional isolation; 4 of the 65 RPCNs in the Phase II sample had scores that denoted high levels of professional isolation, compared to 7 out of the 42 RPCNs in the Phase I sample. Although small, this result must be deemed noteworthy when considered in the context of the small total population of RPCNs in Western Australia. The author estimates that there are between 100 and 120 RPCNs practising in rural Western Australia, based on anecdotal evidence provided by nurses working in rural practice. The lesser number of RPCNs in Phase II who reported high levels of professional isolation, compared to Phase I, may be related to the RPCNs who had left palliative care work in the time between surveying RPCNs for Phase I and Phase II. Anecdotal evidence obtained by the author suggests that at least eight of the RPCNs in the Phase I sample, more than 20%, had ceased to work in palliative care before the commencement of Phase II.

The lack of previous research with which to compare professional isolation for RPCNs makes it impossible to confirm the soundness of the process used to rank levels of professional isolation as low, medium or high. For the purpose of this study, PIMS scores were ranked as low, moderate and high, by dividing scores into three equal groups. Scores were then recoded and the resulting groups were labelled accordingly.

More research is needed to be able to confirm the normative scores used to rank the levels of professional isolation for RPCNs obtained using the PIMS.

Job Satisfaction and RPCNs

Most RPCNs in this study indicated that they experienced high levels of satisfaction with their work. This is comparable with other studies, which have also found that nurses in similar care settings are generally satisfied with their work (Barrett & Yates, 2002; Molassiotis & Haberman, 1996; Pinikahana & Happell, 2004). However, it is incongruent that nurses express high levels of job satisfaction, yet there is a worldwide shortage of nurses, because many nurses choose to leave the profession. The nurses in this study were all employed in the nursing profession at the time of the study. Therefore, it is possible that nurses with lower levels of job satisfaction had already left the rural palliative care nursing. It would be helpful to conduct further research regarding nurses' levels of job satisfaction, with particular emphasis on those nurses who have chosen to leave nursing.

An Australian study found that rural nurses working in smaller health services experienced high job satisfaction, mainly because the generalist nurse role in smaller hospitals allows nurses to use a wide range of skills (Hegney, McCarthy & Pearson, 1999). Another study found that 47% of rural nurses in Queensland (Australia) (n=443) rated job satisfaction as being an important factor in choosing to remaining in rural nursing, along with being part of a team (Hegney, McCarthy, Rogers-Clark & Gorman, 2002b). RPCNs have an extended professional role, and are able to develop specific skills in a speciality area. Factors such as being an autonomous practitioner, having a position with a high level of responsibility and being able to maintain specialist palliative care nursing skills may account for the high levels of job satisfaction experienced by RPCNs in this study.

Intention to Leave Palliative Care

Only 4 out of the 65 RPCNs in the Phase II sample (6%) indicated that they had a high intention to leave palliative care nursing, and 68% indicated that they had little or no intention of leaving palliative care. This relatively low number of nurses intending to leave palliative care does not correspond with anecdotal reports of larger numbers of RPCNs leaving palliative care in WA. It is possible that nurses may not plan to leave for an extended period of time, but may instead make a sudden decision to leave and act on it immediately. Nurses may leave rural areas for personal reasons, which are not

planned in advance, such as family commitments, changes in husband's work status, or the schooling needs of children (Hegney, McCarthy, Rogers-Clark & Gorman, 2002a).

A study of rural mental health workers in New South Wales (Australia) (n= 478) found that reasons given for intending to leave rural mental health work included limited resources, limited access to education and a lack of professional support (Wolfenden, Blanchard & Probst, 1996). However, a large study of registered nurses in Vermont (n= 4418) found that rurality had no impact on nurses' intention to leave the profession (Rambur, Palumbo, McIntosh & Mongeon, 2003), that is, rural nurses indicated the same inclination to leave nursing as their urban counterparts. A British study of nurses and allied health professionals (n= 614) throughout England found that dissatisfaction with the health system and lack of workplace support were key reasons leading to intention to leave nursing (Collins et al., 2000). Bishop (1998) also found a correlation between intention to leave and lack of team support. It would be helpful to explore more fully why nurses leave nursing practice, and what could be done to increase retention rates. This is of particular relevance in rural practice settings that are experiencing particular difficulties in recruiting staff (AIHW, 2003) and where it is more difficult to replace nurses with specific skills in a specialty area.

Refining the Conceptual Framework

A conceptual framework was developed for this study, to show the hypothesised relationships between the variables examined. The proposed framework hypothesised that there would be correlations between professional isolation, burnout and job satisfaction, and that each of these variables would have an effect on RPCNs' intention to leave their current position. The findings of this study have been used to refine the original conceptual framework developed for this study.

The revised conceptual framework presented in Figure 20 shows that there is a correlation between reported levels of professional isolation and the variables of emotional exhaustion and job satisfaction. Professional isolation did not directly correlate with intention to leave scores. However, increased intention to leave correlated with emotional exhaustion and decreased levels of job satisfaction. The depersonalisation scores of the MBI were positively correlated with emotional exhaustion and negatively correlated with personal accomplishment. Personal accomplishment was also correlated with job satisfaction.

A moderate positive correlation was noted between professional isolation and EE. Professional isolation did not appear to be related to the PA or DP scales of the

MBI. However, it has been suggested that EE scores most closely depict the burnout syndrome (Evans & Fischer, 1993). No empirical data could be found that confirmed the relationship between professional isolation and burnout, because few researchers to date have studied the issue of professional isolation. However, a number of studies that discussed the relationship between social support and burnout were included in a meta-analysis (Lee & Ashforth, 1996). The literature suggests that there is a link between decreased social support and increasing burnout. It is likely that people experiencing professional isolation have limited access to professional peers (McCann, 1996; Peternej-Taylor & Johnson, 1995; Solomon et al., 2001), who would be expected to be the primary source of social support in the workplace. Therefore, it is likely that nurses who are professionally isolated would report having less social support, and may be at greater risk of burnout because of this.

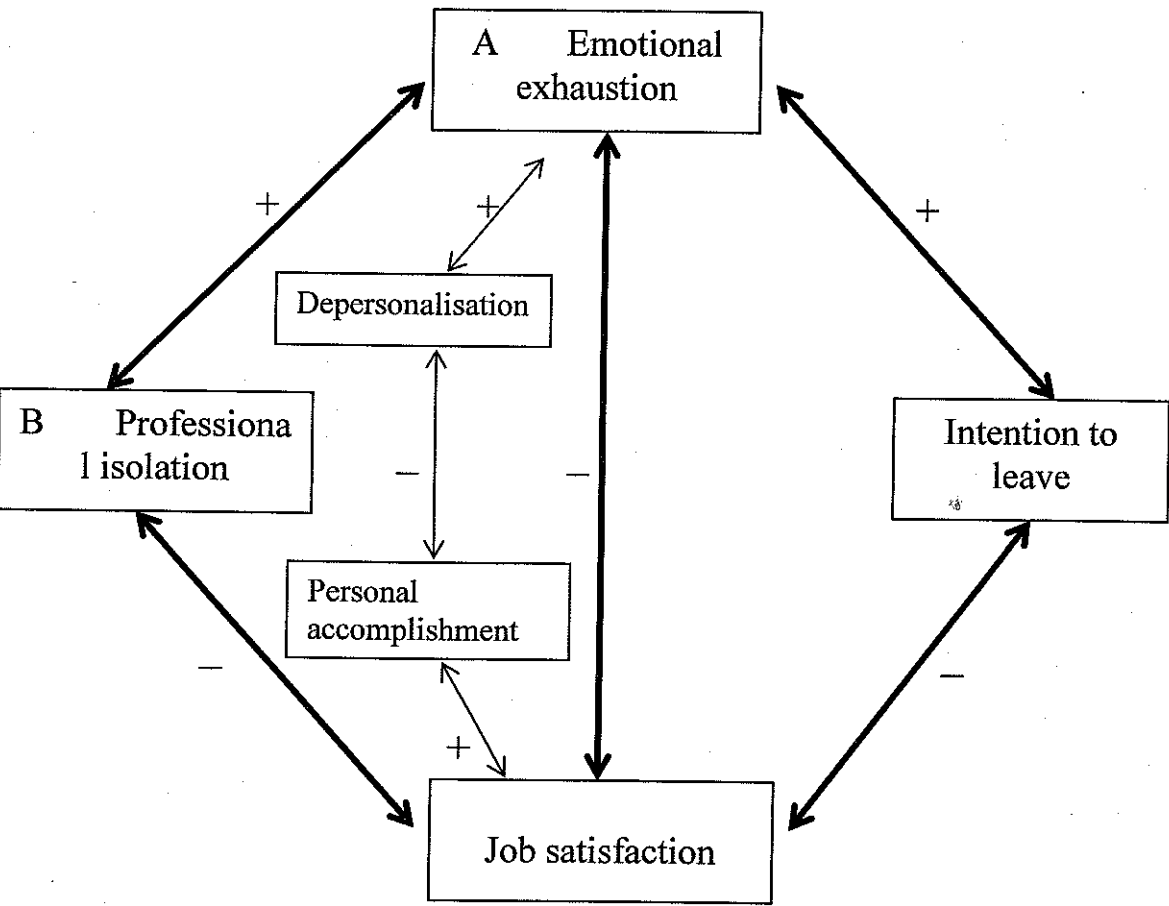


Figure 20: Conceptual Model of Issues for RPCNs

Ogus (1990) reported that as levels of social support at work increased for a sample of Canadian nurses (n= 128), the nurses reported decreased EE and increased PA. Furthermore, the more satisfied the person was with the social support available at

work, the more likely they were to report lower levels of EE. Interestingly, support from family members did not impact on feelings of EE for this sample. Plante and Bouchard (1995) also reported that social support was related to the burnout scores of a group of palliative care nurses ($n=76$), reporting a statistically significant moderate negative correlation between the two variables ($r=-0.45$, $p<0.001$). That is, as social support increased, levels of burnout decreased.

Taormina and Law (2000) studied the relationship between burnout scores and work environment for 154 hospital nurses in Hong Kong. A small correlation was found between EE scores and co-worker support ($r=-0.17$, $p<0.05$), and a slightly stronger correlation was noted between EE scores and training availability ($r=-0.28$, $p<0.001$). Support from co-workers and access to training are key elements in reduction of professional isolation (Solomon et al., 2001; Trollor, 1995). The findings of this study therefore lend support to the conceptual framework that links professional isolation and burnout.

Feelings of professional isolation were also moderately negatively related to decreased levels of job satisfaction. As previously stated, there is little empirical data available about professional isolation, and none was found that linked job satisfaction with professional isolation. However, Hegney et al. (2002b) reported that rural nurses in Queensland stayed in rural nursing in part because they are part of a team and had formed good relationships with nursing colleagues. Professionally isolated RPCNs are less likely to experience being part of a team, they are more likely to be a sole practitioner in palliative care (McConigley, 1998). This may impact on RPCNs' levels of job satisfaction.

Links between EE and job satisfaction have been well established (Molassiotis & Haberman, 1996; Shaddock et al., 1998). However, no research has been conducted that confirms these links in a rural or a palliative care population. Similarly, the relationship between job satisfaction and intention to leave has been documented (Leveck & Jones, 1996; Pan et al., 1995), as has the relationship between EE and intention to leave (Grunfeld et al., 2000), although neither relationship has been tested in rural palliative care settings. This study has reaffirmed the correlation between the variables of EE, job satisfaction and intention to leave position.

Limitations of the Study

There are several limitations to be considered when reviewing the findings of this study. Firstly, the sample for the study was small, and as such the findings may not

be generalisable to other RPCN samples. Identifying the RPCN population in WA was difficult, because there was no register that showed all RPCNs working in the state. Unfortunately, it is possible that there were other more isolated RPCNs who were not identified through the sampling process; therefore, the amount of professional isolation experienced by RPCNs may be understated.

A second limitation of this study is also related to the sample key variables were to be tested before and after implementing the intervention. However, changes to the RPCNs sample, because of staff turnover and the identification of more RPCNs working in WA, meant that a pretest-posttest design could not be used with Phase I as a pre-intervention test and Phase II as a post-intervention test. Instead, a pretest-posttest design was used only for those nurses who attended the educator workshops in Phase II. A comparison group was used in Phase II to test if there were differences between RPCNs who had participated in the intervention and those who did not. There were some significant differences between the demographic characteristics of the intervention group and the comparison group, making analysis of the data difficult. Also, there were no statistically significant differences in the CPCM, PIMS, and MBI scores between the RPCNs who attended the palliative care educator workshops, and the comparison group who did not attend a workshop. Results pertaining to the effects at attendance of a workshop are therefore presented with caution.

Finally, because professional isolation had not been widely tested, a new instrument, the PIMS, was developed. The PIMS and the three PIMS subscales showed acceptable reliability estimates, measured using Cronbach's alpha coefficient. However, additional testing of the PIMS would further demonstrate the reliability and validity of this tool. In particular, factor analysis and test-retest analysis could be completed with a larger sample to further determine reliability.

Conclusion

Phase II of this study has resulted in the identification of a profile of RPCNs, a population that has until now been largely ignored in the professional literature. The emerging profile of RPCNs suggests that there are some issues to be considered for this population. In particular, access to formal education to upgrade nursing qualifications needs, to be examined. It may also be timely to examine models of palliative care suitable for care provision in rural locations. RPCNs appear to have an understanding of palliative care that may equate to the palliative approach suggested by some authors, and this may be an appropriate method of care provision in a generalist health setting.

Phase II also demonstrated that providing education for isolated rural practitioners may offer some benefits to participants. In particular, attendance at an education workshop may decrease levels of professional isolation, and increase job satisfaction. This finding is presented with caution due to the use of a comparison group at the final time only, rather than at all three time points.

Phase II has also examined the conceptual framework developed for this study. The findings of this phase have lead to changes being made to the original conceptual framework. In particular, the relationship between professional isolation and intention to leave has been examined. Professional isolation is not directly related to intention to leave, however, it is related to both EE and job satisfaction, which in turn are both correlated with intention to leave. The conceptual framework has been adapted to show these relationships. Also, the MBI subscale scores of DP and PA appear to have little bearing on the main variables, and as such the conceptual framework has been completed using the MBI subscale score EE, which has significant relationships with all variables in the conceptual framework.

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATIONS

This thesis has described a two-phase study which has explored issues of relevance to palliative care nurses working in rural Western Australia. In particular, the study has focussed on the issues of professional isolation, burnout and job satisfaction, and how these issues impact on the intention of nurses to remain or to leave palliative care practice. As part of the study, an intervention designed to assist RPCNs in their professional role was also tested using a pretest-posttest design. This chapter presents a summary of the findings of this study, as well as recommendations which have arisen.

Summary of Findings

Phase I: A Learning Needs Assessment

The findings of the learning needs assessment of RPCNs affirmed the need to provide continuing education for nurses working in an expanded role in rural areas. RPCNs indicated that they were keen to access any education provided, but expressed a preference for education delivered locally. RPCNs were particularly interested in learning more about issues that would enhance their clinical practice, especially topics related to physical care needs of patients, such as palliative care emergency treatment and pain and symptom management. They were not interested in the use of technologies such as the Internet or videoconferencing, probably because a large number of respondents did not have access to these facilities. Instead, they preferred education to be delivered in a more traditional way, either with face-to-face classroom type lessons, or via paper-based newsletters.

The data collected from the learning needs analysis guided the planning and development of an educational intervention. The intervention involved building capacity from within rural communities, by training and equipping RPCNs to provide palliative care education to other health care professionals in their communities when needed. The intervention had two components. The first involved a one-day workshop that would give RPCNs some guidelines about how to present effective education sessions. The second component of the intervention involved providing RPCNs with a ready-made educational resource, *Over Handover*. This package provided educational

materials about a range of clinical palliative care topics frequently encountered in rural palliative care practice. The decision to increase the capacity of RPCNs to provide timely and accurate education was followed the findings that the majority of RPCNs sought advice and information about palliative care from local personnel, who may not have expertise in the palliative care area. The findings have added to the understanding of the education needs of palliative care nurses working in a rural setting, and have underscored the need to provide education for rural practitioners that focuses on issues specific to rural practice.

Phase II: Evaluation of an Education Intervention

Phase II of this study included the implementation and evaluation of the education intervention. The efficacy of the intervention was evaluated in two ways. A summative evaluation was used to assess participant satisfaction with the workshop and the education packages. A pretest-posttest design was also used to measure changes in levels of confidence in palliative care provision, professional isolation, burnout, job satisfaction and intention to leave, following attendance at a palliative care education workshop.

The summative evaluations indicated that RPCNs were satisfied with the workshop they had attended, they had used the *Over Handover* packages and they had found them useful. Results of the pretest-posttest evaluation revealed that confidence increased by a small but significant amount following attendance at the workshop, as did job satisfaction. Professional isolation decreased over the evaluation period. Emotional exhaustion scores decreased immediately after attending a workshop, but after three months had risen to a level similar to pre-workshop levels. Intention to leave scores were higher three months after the intervention than they had been when measured prior to the commencement of the intervention. This evaluation has shown that providing education for RPCNs using a face-to-face format can have positive effects for RPCNs. However, the findings also suggest that further investigation of issues for RPCNs that may make them burnout and consider leaving their palliative care role is needed.

Phase II also involved testing the relationships between professional isolation, burnout, job satisfaction and intention to leave palliative care. The findings of this study suggest that professional isolation is moderately correlated with the emotional exhaustion component of burnout, and also has a moderate negative correlation with job satisfaction. There is a moderate negative relationship between job satisfaction and

emotional exhaustion, and a positive relationship between emotional exhaustion and RPCNs' intention to leave palliative care. These findings have been used to refine the conceptual framework developed for this study; however, further testing of this framework would be helpful to fully elucidate the relationships amongst variables. This study has added to the body of knowledge about rural palliative care in an Australian context, and has also demonstrated the importance of trialling interventions to alleviate professional isolation for rural practitioners.

Recommendations

A series of recommendations for practice and research have arisen from this study. Recommendations will be presented for four key areas of nursing: clinical practice, nursing management, nurse education and research.

Clinical Practice

Over 66% of RPCNs in this study reported moderate levels of professional isolation, and expressed the desire to have more frequent access to peers for debriefing and sharing of ideas. It may be helpful to consider making debriefing a requirement of the RPCN role. This is common in other disciplines that deal with emotionally charged situations on a regular basis, such as psychology and counselling (Kilminster & Jolly, 2000), and offers practitioners a regular and formalised time to debrief and discuss issues of concern. Making debriefing a requisite part of RPCN practice may help alleviate feelings of professional isolation and burnout, and may therefore increase the retention rate of these health professionals.

RPCNs appear to work in isolation, and may have limited interaction with other palliative care professionals in rural areas (McConigley, 1998). A formalised system of sharing ideas and resources may be helpful in assisting RPCNs to maintain currency of information and skills. The cost of buying and updating resources such as books and professional journals is prohibitive for small health services. However, if a number of small services were to pool resources, and have a system of regular networking and information exchange, it would be possible for RPCNs to share information more readily. Regular networking forums would also offer participants an opportunity to debrief in an informal setting, thereby possibly reducing professional isolation and burnout.

Few RPCNs in this sample had obtained an undergraduate qualification in nursing or a related discipline. This may be because of difficulties associated with RPCNs accessing further education. Several authors have stressed the importance of nurses being adequately prepared for the expanded rural nurse role, but also stress that rural nurses may have difficulty accessing appropriate education opportunities (Francis et al., 2001; Kenny & Duckett, 2003). Both of these papers suggest that postgraduate education would be the most appropriate qualification for nurses working in an expanded nurse role. Therefore, it is essential that attention be focussed on providing opportunities for rural nurses to access formal education that will adequately prepare them for their role. Although the increase in the number of university campuses in regional areas of Australia will enable some rural nurses to upgrade their qualifications, attention needs to be paid to isolated nurses for whom regional universities are inaccessible. Furthermore, it would be helpful to ascertain the reasons which rural nurses identify for not taking advantage of the increasing number of distance education courses offered by universities.

Technologies such as videoconferencing and interactive Internet sites need to be actively promoted as education tools in more geographically remote areas. The size of WA makes it difficult to provide face-to-face education sessions, debriefing, or clinical teaching sessions on a regular basis to isolated communities with a palliative care service. The costs associated with Perth-based palliative care educators travelling to rural centres to provide education are prohibitive. However, use of technologies, such as the Internet and videoconferencing, offer new options to alleviate professional isolation for remote practitioners. Since this research was conducted in 2000, access to technology has improved in rural WA, with improved telecommunications infrastructure being made available to rural communities. The Australian Federal Government and the national telecommunications service provider have pledged to improve Internet access for rural Australia, and the Western Australian state government has funded a widespread telehealth project, which uses videoconferencing technologies to link rural health professionals with Perth-based specialist care providers. However, there is still scope for expanding the use of technologies to help rural practitioners have regular contact with professional peers in remote locations. Attention needs to be paid to improving the use of technology by rural practitioners, by increasing access to technologies in the workplace, and most importantly by providing suitable

education and training in the use of technology. It is vital that rural health care professionals feel comfortable and confident using technology to access information and support for themselves and their patients.

Nurses in this study expressed reluctance to use technologies to assist them in their learning. However, several studies have found that although nurses were reluctant to begin a course of web-based study, and reported difficulties commencing study because of limited computer skills, they found that after mastering the computer skills needed to complete the course, nurses described a sense of satisfaction, and found that the flexibility of a web-based course met their learning needs (Ali et al., 2004; Mastrian & McGonigle, 1997).

It would be helpful to examine methods of assisting rural nurses to maintain competency in skills they use infrequently. Empirical data regarding the efficacy of different education methods, such as regular simulated practical sessions, written tests of knowledge or case study presentations would be helpful to plan education for rural practitioners. At present, little is known about how best to prepare rural nurses to provide for infrequent, but nonetheless anticipated, care needs of patients. However, this is an area that requires attention if rural people are to have access to high standards of care.

Nursing Management

RPCNs in this study reported moderate levels of professional isolation and burnout, and 6% expressed an intention to leave their palliative care role. Given the current shortages of nurses in rural Australia, the development of strategies to retain skilled nurses is essential. RPCNs have developed a body of specialist palliative care knowledge, which may be difficult to replace if they do not continue working in palliative care. The costs of RPCNs leaving rural communities are multifaceted. The economic costs of replacing a nurse with specialist palliative care knowledge are high. The cost to the health service and the local community when an RPCN leaves must be considered. The loss of a skilled palliative care provider means that patients requiring care may not have access to a nurse who has a sound knowledge of palliative care provision, and therefore patients may receive less than optimal care.

It is also timely to explore models of palliative care delivery which are suitable for small isolated communities. It may be appropriate to adopt a palliative approach to care provision for rural people with a terminal illness, as well as training a small number of palliative care expert RPCNs. It is a risk to have only one person in a small

community with specialist knowledge, because all knowledge and skills are lost if the person leaves the community. This could be avoided if all members of the health care team adopted a palliative approach, and were therefore more aware of the needs of palliative care patients and also more able to support specialist RPCNs in providing care. This would decrease the reliance of other health professionals on an individual practitioner with specialist skills, and instead would promote more widespread collaboration among rural health care providers. McConigley's (1998) research found that being considered an expert palliative care nurse was stressful for RPCNs, and increased collegial support may go some way to relieving this stress.

Nursing Research

Further research is warranted to explore specific issues in rural palliative care that have emerged from these findings. In particular, there are three areas that require additional investigation: the effects of professional isolation on rural health professionals, ways that professional isolation can be managed, and the reasons that RPCNs leave palliative care practice.

This research has begun to explore the issue of professional isolation for specialist nurses working in geographically remote areas. More research into the efficacy of the PIMS, an instrument developed to measure professional isolation, is warranted to determine the effectiveness of this instrument in identifying professional isolation in at risk populations. Further testing of the reliability and validity of this newly developed instrument is indicated. Also, a comparative study using qualitative and quantitative methods to compare the lived experience of isolated RPCNs with their PIMS scores would be helpful to confirm the normative scores used to rank PIMS scores as low, moderate or high.

More research into professional isolation may also help to determine factors that have a direct effect on this construct, and ways that professional isolation can be avoided or ameliorated. Professional isolation is a problem which may affect rural practitioners, but which may also affect people who work in isolation in other locations. It is possible that the adverse effects of professional isolation may impact on the work practices of people suffering from this problem. It is therefore important that more information is obtained about professional isolation and its effects.

It would be helpful to have further data to continue development of rural palliative care nursing practice. In particular, a more in-depth exploration of issues that may influence RPCNs to leave palliative care work is justified. This research has begun

to examine levels of burnout and professional isolation in the RPCN population. More research in this area would assist in developing appropriate interventions to assist RPCNs in what appears to be a taxing and stressful professional role. McIlfatrick and Keeney (2003) identified stress and burnout in cancer nurses in Ireland as an important issue requiring further study, with nurses ranking it as the second most important issue after communication. Interestingly, this finding was different from an Australian study that found that cancer nurses ranked issues relating to terminal care, professional issues and symptom management as the issues most requiring further research (Barrett, Kristjanson, Sinclair & Hyde, 2001). Further information regarding specific rural palliative care issues would be helpful to plan education for beginning practitioners in this field. Education planned with a greater understanding of the challenges of rural practice may assist RPCNs in meeting these challenges.

Conclusion

This research project has examined issues related to rural palliative care nursing in a Western Australian setting. The findings of the study have shown that RPCNs report being moderately professionally isolated. RPCNs who report higher levels of professional isolation are also more likely to report high levels of emotional exhaustion and decreased job satisfaction. Nurses who report feeling emotionally exhausted and who are dissatisfied with their professional role are more likely to consider leaving their job. These findings have implications for clinical palliative care provision, and also for nurse managers and nurse educators. Further research into issues that may impact on RPCNs is warranted, to ensure that rural palliative care nursing practice is further developed using a sound evidence base.

REFERENCES

- Anonymous. (1998). Overcoming isolation in independent legal practice. *Journal of Legal Nurse Consultants*, 9(1), 24.
- Alexander, D.A., & MacLeod, M. (1992). Stress among palliative care matrons: A major problem for a minority group. *Palliative Medicine*, 6, 111-124.
- Ali, N.S., Carlton, K.H., & Ryan, M. (2004). Students' perceptions of online learning: Implications for teaching [Electronic version]. *Nurse Educator*, 29(3), 111-115.
- Armer, J.M. (2003). A case study of the use of telemedicine by advanced practice nurses in rural Missouri [Electronic version]. *The Journal of Continuing Education in Nursing*, 34(5), 226-233.
- Auditor General for Western Australia (2002). *A critical resource: Nursing resources and the use of agency nurses, Report No. 3*. Retrieved May 8, 2004, from http://www.audit.wa.gov.au/reports2002_03/report2002_03pf
- Australian Bureau of Statistics. (2001). *Australian standard geographical classification*. Canberra: Australian Government Publishing Service.
- Australian Bureau of Statistics. (2003). *National regional profile 5: Western Australia*. Retrieved May 8, 2004, from <http://www.abs.gov.au/austats/abs@.nsf/0/F6B16ED68CA269C3CA269C3CA256E5C001A5AE0?open>
- Australian Government Department of Health and Aging. (2004). *Guidelines for a palliative approach in residential aged care*. Canberra, Australia: Author.
- Australian Institute of Health and Welfare. (1998). *Health in rural and remote Australia*. Canberra: Author.
- Australian Institute of Health and Welfare. (2001). *Nursing labour force 1999*. Canberra: Author
- Australian Institute of Health and Welfare. (2003). *Nursing labour force 2002*. Canberra, Australia: Author
- Barnabe, C., & Kirk, P. (2002). A needs assessment for Southern Manitoba physicians for palliative care education. *Journal of Palliative Care*, 18(3), 175-184.
- Barrett, L., & Yates, P. (2002). Oncology/haematology nurses: A study of job satisfaction, burnout, and intention to leave the speciality. *Australian Health Review*, 25(3), 109-121.

- Barrett, S., Kristjanson, L.J., Sinclair, T., & Hyde, S. (2001). Priorities for adult cancer nursing research: A West Australian replication. *Cancer Nursing*, 24, 88-98.
- Beyea, S.C., & Nicoll, L.H. (1999). A survey does not equal research. *AORN Journal*, 69(1), 263-264.
- Bishop, J.W. (1998). Performance and retention of professional employees who work in teams: The effects of commitment and support. *Clinical Laboratory Management*, 12(3), 150-158.
- Blanchard, C.G., Osborn, B.J., Dick, E., & Kelty, T. (1985). Professional isolation in oncology and hospice care: Does a social work support group help? *American Journal of Hospice Care*, 2(1), 34-6.
- Bram, P.J., & Katz, L.F. (1989). A study of burnout in nurses working in hospice and hospital oncology settings. *Oncology Nursing Forum*, 16(4), 555-560.
- Bramley, P. (1991). *Evaluating training effectiveness: Translating theory into practice*. London: McGraw Hill Book Company.
- Brooks, A. (1984). Female cantors fighting professional isolation. *The New York Times*, 133(20), 52.
- Buehler, J.A., & Lee, H.J. (1992). Exploration of home care resources for families with cancer. *Cancer Nursing*, 15(4), 299-308.
- Bullock, L.F.C., Libbus, K., Lewis, S., & Gayer, D. (2002). Continuing education: Improving perceived confidence in school nurses. *The Journal of School Nursing*, 18(6), 360-363.
- Burman, M.E., Steffes, M., & Weinert, C. (1993). Cancer home care in Montana. *Home Health Care Services Quarterly*, 14(2/3), 37-52.
- Bushy, A., & Banik, D. (1991). Nurse satisfaction with work in rural hospitals. *Journal of Nursing Administration*, 21(11), 35-38.
- Cavanagh, S. (1997). Content analysis: Concepts, methods and applications. *Nurse Researcher*, 4(3), 5-16.
- Collins English Dictionary (3rd Australian ed.). (1995). Sydney, Australia: Harper Collins.
- Collins, K., Jones, M.L., McDonnell, A., Read, S., Jones, R., & Cameron, A. (2000). Do new roles contribute to job satisfaction and retention of staff in nursing and professions allied to medicine? *Journal of Nursing Management*, 8, 3-12.
- Congdon, J.G., & Magilvy, J.K. (2001). Themes of rural health and aging from a program of research. *Geriatric Nursing*, 22(5), 234-238.

- Conley, V.M., & Burman, M.E. (1997). Informational needs of caregivers of terminal patients in a rural state. *Home Healthcare Nurse*, 15(11), 808-817.
- Cook, S.B., Harrah, C.J., Howard, S.A., Rohr, B.V., & Uricheck, B.M. (1992). The association between perceptions of loneliness and perception of supportive professional relationships of nurse middle managers. *Virginia Nurse*, 60(2), 13-17.
- Copp, G., & Dunn, V. (1993). Frequent and difficult problems perceived by nurses caring for the dying in the community, hospice and acute care settings. *Palliative Medicine*, 7, 19-25.
- Craig, C. (1994). Community determinants of health for the rural elderly. *Public Health Nursing*, 11(4), 242-246.
- Cramer, J. (1995). Finding solutions to support remote area nurses. *Australian Nursing Journal*, 2(6), 21-25.
- Crow, L. (2004). Customer satisfaction surveys: What do they mean? [Electronic version]. *Journal of College Science Teaching*, 33(3), 56-58.
- Crowley, C. (1985). Thoughts on one-person PR staff. *Communication World*, 2(7), 30-32.
- Cruchet, D. (1994). Peer support helps oncology nurses deal with dying patients. *Canadian Oncology Nursing Journal*, 4(4), 164-167.
- Curtiss, C.P. (1993). Trends and issues for cancer care in rural communities. *Nursing Clinics of North America*, 28(1), 241-251.
- Dahlin, C. (2000). Palliative care nursing: An emerging specialty. *Imprint*, 47(2), 38-39.
- Dailey, R.C. (1990). Role perceptions and job tensions as predictors of nursing turnover. *Nursing Connections*, 3(2), 33-42.
- Dalton, J.A., Bernard, S., Blau, W., Johnston, C., Mann, J.D., Germino, B., Pierce, S., Toomey, T., Mooney, D., & Carlson, J. (1995). Managing cancer pain: Content and scope of an educational program for nurses who work in predominantly rural areas. *Journal of Pain and Symptom Management*, 10(3), 214-223.
- Davis, A.E. (1996). Instrument development: Getting started. *Journal of Neuroscience Nursing*, 28(3), 204-207.
- Davis, J. (1987). Rurality and isolation in education. *Rural Educator*, 9(1), 11-14.
- Dimond, M., & Jones, S.L. (1983). Social support: A review and theoretical integration. In P.L. Chin (Ed.), *Advances in nursing theory development* (pp. 235-249). Maryland: Aspen Publishing.

- Downe-Wamboldt, B. (1992). Content analysis: Methods, applications and issues. *Health Care for Women International*, 13, 313-321.
- Dunning, P.L., Brown, L., Phillips, P., & Ayers, B. (1994). Diabetes health care and education: The challenge of isolation. *Australian Journal of Rural Health*, 2(3), 11-16.
- Duquette, A., Kerouac, S., Sandhu, B.K., & Beaudet, L. (1994). Factors related to nursing burnout: A review of empirical knowledge. *Issues in Mental Health Nursing*, 15, 337-358.
- Dusmohamed, H., & Guscott, A. (1998). Preceptorship: A model to empower nurses in rural health settings. *Journal of Continuing Education in Nursing*, 29(4), 154-60, 190-191.
- Dussault, M., & Barnett, B.G. (1996). Peer assisted leadership: Reducing educational managers' professional isolation. *Journal of Educational Administration*, 34(3), 5-14.
- Dussault, M., Deaudeline, C., Royer, N., & Loiselle, J. (1999). Professional isolation and occupational stress in teachers. *Psychological Reports*, 84(3), 943-946.
- Dussault, M., & Thibodeau, S. (1997). Professional isolation and performance at work of school principals. *Journal of School Leadership*, 7(5), 521-536.
- Eldridge, F. (1988). A "Catch 22" dilemma: Establishing and funding small rural hospices. *The American Journal of Hospice Care*, November/December, 19-21.
- Else, B., & McIntyre, J. (1996). Assessing a support and learning network for palliative care workers in a country area of South Australia. *Australian Journal of Rural Health*, 4(3), 159-164.
- Encyclopaedia of Australia*. [CD]. (1996). Sydney, NSW: Webster Publishing.
- Endsley, R.C., & Brody, G.H. (1981). Professional isolation of child and family specialists as revealed in a time series analysis of parent-child relations research methods. *Family Relations*, 30(1), 5-15.
- Ernst, D.F. (1995). The head nurse role in a rural hospital. *Nursing Management*, 26(8), 50, 52, 54-55.
- Evans, B.K. & Fischer, D.G. (1993). The nature of burnout: A study of the three-factor model of burnout in human and no human service samples. *Journal of Occupational and Organizational Psychology*, 66(1), 29-38.
- Evans, F. (1994). The role of the registered nurse in the rural, but not remote, setting. *Australian Journal of Rural Health*, 2(2), 15-18.

- Farrell, M.J. (1998). National palliative care education and training needs analysis. *Contemporary Nurse*, 7(2), 60-67.
- Faulkner, K., & McClelland, L. (2002). Using videoconferencing to deliver a health education program to women health consumers in rural and remote Queensland: An early attempt and future plans. *Australian Journal of Rural Health*, 10, 65-72.
- Flinders, D.J. (1988). Teacher isolation and the new reform. *Journal of Curriculum and Supervision*, 4(1), 17-29.
- Francis, K., Bowman, S., & Redgrave, M (2001). *Rural nurses: Knowledge and skills required to meet the challenges of a changing work environment in the 21st century – A review of the literature*. Retrieved September 6, 2004, from http://www.dest.gov.au/archive/highered/nursing/pubs/rural_nurses/1
- Freundenberger, K. (1991). Rural hospices: Strategic planning for expansion. *The American Journal of Hospice and Palliative Care*, 8(2), 19-21.
- Gifford, S. (1991). Culture and breast cancer: Myth or mosaic? *Cancer Forum*, 15(3), 171-174.
- Gotay, C.C., Crockett, S., & West, C. (1985). Palliative home care nursing: Nurses' perceptions of roles and stress. *Canada's Mental Health*, 33(2), 6-9.
- Gould, D., Kelly, D., & White, I. (2004). Training needs analysis: An evaluation framework. *Nursing Standard*, 18(20), 33-36.
- Gracey, M., & Veroni, M. (1995). Comparative hospitalisation and mortality rates of aboriginal and non-aboriginal Western Australians in their sixth and seventh decades. *Australia and New Zealand Journal of Medicine*, 25, 27-31.
- Grant, J.S., & Davis, L.L. (1997). Selection and use of content experts for instrument development. *Research in Nursing and Health*, 20, 269-274.
- Grunfeld, E., Whelan, T.J., Zitzelsberger, L., Willan, A.R., Montesanto, B., & Evans, W.K. (2000). Cancer care workers in Ontario: Prevalence of burnout, job stress and job satisfaction [Electronic version]. *Canadian Medical Association Journal*, 163(2), 166-169.
- Gumpert, D.E., & Boyd, D.P. (1984). The loneliness of the small business owner. *Harvard Business Review*, Nov-Dec, 18-24.
- Haines, C.S., & Thomas, Z. (1993). Assessing needs for palliative care education of primary physicians: Results of a mail survey. *Journal of Palliative Care*, 9(1), 23-26.

- Hanna, L. (2001). Continued neglect of rural and remote nursing in Australia: The link with poor health outcomes. *Australian Journal of Advanced Nursing*, 19(1), 36-45.
- Hanson, C.M., Jenkins, S., & Ryan, R. (1990). Factors related to job satisfaction and autonomy as correlates of potential job retention for rural nurses. *The Journal of Rural Health*, 6(3), 302-316.
- Harrington, D., Bean, N., Pintello, D., & Mathews, D. (2001). Job satisfaction and burnout: Predictors of intention to leave a job in a military setting [Electronic version]. *Administration in Social Work*, 25(3), 1-16.
- Harvey, D., Sandhu, G., & Strasser, R. (1995). Unresolved healthcare issues in rural and remote Australia: Preliminary findings from a national rural health unit survey. *Australian Journal of Rural Health*, 3(1), 34-36.
- Hawkins, R., Curtiss, C., & Lauria, M.M. (1997). Cancer resources for providers in the rural community. *Cancer Practice: A Multidisciplinary Journal of Cancer Care*, 5(6), 383-386.
- Health Department of Western Australia. (1998). *Health 2020: A discussion paper*. Perth, Western Australia: Author.
- Hedman, L., & Lazure, L.A. (1990). Extending continuing education to rural area nurses. *The Journal of Continuing Education in Nursing*, 21(4), 165-168.
- Hegney, D. (1996). The status of rural nursing in Australia: A review. *Australian Journal of Rural Health*, 4(1), 1-10.
- Hegney, D. (1997). Defining rural and rural nursing. In L.H. Siegloff (Ed.), *Rural nursing in the Australian context* (pp. 13-24). Canberra, Australia: Royal College of Nursing Australia.
- Hegney, D., McCarthy, A., Rogers-Clark, C., & Gorman, D. (2002a). Why nurses are resigning from rural and remote Queensland health facilities. *Collegian*, 9(2), 33-39.
- Hegney, D., McCarthy, A., Rogers-Clark, C., & Gorman, D. (2002b). Why nurses are attracted to rural and remote practice. *Australian Journal of Rural Health*, 10, 178-186.
- Hegney, D., Pearson, A., & McCarthy, A. (1997). *The role and function of the rural nurse in Australia*. Canberra, Australia: Royal College of Nursing Australia.
- Hegney, D., McCarthy, A., & Pearson, A. (1999). Effects of size of health service on scope of rural nursing practice. *Collegian*, 6(4), 21-26.

- Higginson, I.J., Finlay, I. G., Goodwin, D.M., Hood, K., Edwards, A.G.K., Cook, A., Douglas, H., & Normand, C.E. (2003). Is there evidence that palliative care teams alter end-of-life experiences of patients and their caregivers? *Journal of Pain and Symptom Management*, 25(2), 150-168.
- Hill, P., & Alexander, T. (1996). Continuing professional education: A challenge for rural health practitioners. *Australian Journal of Rural Health*, 4(40), 275-279.
- Hinds, P.S., Puckett, P., Donohoe, M., Milligan, M., Payne, K., Phipps, S., Davis, S.E.F., & Martin, G.A. (1994). The impact of a grief workshop for pediatric oncology nurses on their grief and perceived stress. *Journal of Pediatric Nursing*, 9(6), 388-397.
- Hingley, P., & Cooper, C. L. (1986). *Stress and the nurse manager*. Chichester, UK: John Wiley and Sons.
- Hoffart, N. (1991). A member check procedure to enhance rigor in naturalistic research. *Western Journal of Nursing Research*, 13(4), 522-534.
- Hopkinson, J.B. (2002). The hidden benefit: The supportive function of the nursing handover for qualified nurses caring for dying people in hospital [Electronic version]. *Journal of Clinical Nursing*, 11(2), 168-175.
- Hovenga, E.J.S., Hovel, J., Klotz, J., & Robins, P. (1998). Infrastructure for reaching disadvantaged consumers: Telecommunications in rural and remote nursing in Australia. *Journal of American Medical Informatics Association*, 5(3), 269-275.
- Hugo, G.I. (1996). *Atlas of the Australian people: 1991 census (WA)*. Canberra, Australia: Australian Government Publishing Service.
- Humphries, J.S. (1998). Delimiting 'rural': Implications of an agreed 'rurality' index for healthcare planning and resource allocation. *Australian Journal of Rural Health*, 6(4), 212-216.
- Humphries, J.S., & Nichols, A. (1995). Rural health policy: The third national rural health conference. *Australian Journal of Rural Health*, 3(1), 34-36.
- Huntley, B. (1994-1995). Factors influencing recruitment and retention: Why RNs work in rural and remote area hospitals. *Australian Journal of Advanced Nursing*, 12(2), 14-19.
- International Council of Nurses. (2003, January-March). Global issues in the supply and demand of nurses. *Sew News*, 1. Retrieved May 8, 2004, from <http://www.icn.ch/sewjn-march03.htm>.

- Jack, B., Oldham, J., & Williams, A. (2003). A stakeholder evaluation of the impact of the palliative care clinical nurse specialist upon doctors and nurses, within an acute hospital setting. *Palliative Medicine*, 17, 283-288.
- Jeffreys, M.R., Massoni, M., O'Donnell, M., & Smodlaka, I. (1997). Student evaluation of courses: Determining the reliability and validity of three survey instruments. *Journal of Nursing Education*, 36(8), 397-400.
- Johnson, L.R., Cohen, M.Z., & Hull, M.M. (1994). Cultivating expertise in oncology nursing: Methods, mentors and memories. *Oncology Nursing Forum*, 21(8, Suppl.), 27-34.
- Jolma, D. J. (1990). Relationship between nursing workload and turnover. *Nursing Economics*, 8(2), 110-114.
- Jordan, S.A., & Hargrove, D.S. (1987). Implications of an empirical application of categorical definitions of rural. *Journal of Rural Community Psychology*, 8(2), 14-29.
- Kearns, P. (1997). *Midwifery workforce report: A report on the recruitment and retention of midwives in rural/remote South Australia*. Adelaide, South Australia: South Australian Rural Health Training Unit.
- Kelly, M., & Barber, H. (1989). Comparing urban and rural hospice services. *The Practitioner*, 233, 1063-1065.
- Kenny, A., & Duckett, S. (2003). Educating for rural nursing practice. *Journal of Advanced Nursing*, 44(6), 613-622.
- Keyzer, D.M. (1998). Reflections on practice: Defining rural nursing care. *Australian Journal of Rural Health*, 6(3), 100-104.
- Killeen, C. (1998). Loneliness: An epidemic in modern society. *Journal of Advanced Nursing*, 28(4), 762-770.
- Kilminster, S.M., & Jolly, B.C. (2000). Effective supervision in clinical practice settings: A literature review. *Medical Education*, 34(10), 827-840.
- Knowles, M.S. (1990). *The adult learner: A neglected species*. Houston: Gulf Publishing.
- Kreger, A. (1992-1993). The invisible crisis: A national perspective of remote area health care. *The Lamp*, 49(11), 32-33.
- Krikorian, D.A., & Moser, D.H. (1985). Satisfaction and stresses experienced by professional nurses in hospice programs. *The American Journal of Hospice Care*, 2, 25-33.

- Kristjanson, L., Dudgeon, D., Nelson, F., Henteleff, P., & Balneaves, L. (1997). Evaluation of an interdisciplinary training program in palliative care: Addressing the needs of rural and northern communities. *Journal of Palliative Care*, 13(3), 5-12.
- Kristjanson, L.J., McPhee, I., Pickstock, S., Wilson, D., Oldham, L., & Martin, K. (2001). Palliative care nurses' perceptions of good and bad deaths and care expectations: A qualitative analysis. *International Journal of Palliative Nursing*, 7(3), 129-139.
- Kristjanson, L.J., Toye, C., & Dawson, S. (2003). New dimensions in palliative care: A palliative approach to neurodegenerative diseases and final illness in older people. *Medical Journal of Australia*, 179(6, Suppl.), 42-44.
- Krout, J.A. (1997). Barriers to providing case management to older rural persons. *Journal of Case Management*, 6(4), 142-150.
- Kubecka, K., Simon, J., & Boettcher, J.H. (1996). Pain management knowledge of hospital based nurses in a rural Appalachian area. *Journal of Advanced Nursing*, 23(5), 861-867.
- Lee, R.T., & Ashforth, B.E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout [Electronic version]. *Journal of Applied Psychology*, 81(2), 123-133.
- Leveck, M.L., & Jones, C.B. (1996). The nursing practice environment, staff retention, and quality of care. *Research in Nursing and Health*, 19(4), 331-343.
- Liff, J.M., Chow, W.H., & Greenberg, R.S. (1991). Rural-urban differences in stage at diagnosis: Possible relationship to cancer screening. *Cancer*, 67, 1454-1459.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Beverley Hills, CA: Sage.
- Lloyd-Williams, M., Wilkinson, C., & Lloyd-Williams, F. (2000). General practitioners in North Wales: Current experiences of palliative care [Electronic version]. *European Journal of Cancer Care*, 9(3), 138-143.
- Long, K.A., & Weinert, C. (1992). Rural nursing: Developing the theory base. In P. Winstead-Fry, J.C. Tiffany, & R.V. Shippee-Rice (Eds.). *Rural health nursing: Stories of creativity, commitment and connectedness* (pp. 389-406). New York: National League for Nursing Press.
- Longman, A.J., Atwood, J.R., Sherman, J.B., Benedict, J. & Shang, T.C. (1992). Care needs of home-based cancer patients and their caregivers: Quantitative findings. *Cancer Nursing*, 15(3), 182-190.

- Lott, D.R. (1996). Can distance education solve rural physicians professional isolation? *Journal of Continuing Higher Education*, 44(3), 25-28.
- Lowe, C.J.M., & Bithell, C.P. (2000). Musculoskeletal physiotherapy in primary care sites: Survey of English NHS trusts. *Physiotherapy*, 86(9), 479-85.
- Lynn, M.R. (1985). Reliability estimates: Use and disuse. *Nursing Research*, 34, 254-256.
- MacLean, M.J., & Kelley, M.L. (2001). Palliative Care in Rural Canada. *Rural Social Work*, 6(3), 63-73.
- MacLeod, M., Browne, A.J., & Leipert, B. (1998). Issues for nurses in rural and remote Canada. *Australian Journal of Rural Health*, 6, 72-78.
- MacLeod, R.D., Nash, A., & Charny, M. (1994). Evaluating palliative care education. *European Journal of Cancer Care*, 3(4), 163-168.
- Mallett, K., Price, J.H., Jurs, S.G., & Slenker, S. (1991). Relationships among burnout, death anxiety, and social support in hospice and critical care nurses. *Psychological Reports*, 68(3, Pt. 2), 1347-1359.
- Malone-Rising, D. (1992). Rural research: The Lamoille County experience. In P. Winstead-Fry, J.C. Tiffany, & R.V. Shippee-Rice (Eds.). *Rural health nursing: Stories of creativity, commitment and connectedness* (pp. 273-298). New York: National League for Nursing Press.
- Maslach, C. (2001). What have we learned about burnout and health? *Psychology and Health*, 16, 607-611.
- Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 2, 99-113.
- Maslach, C., & Jackson, S.E. (1986). *Maslach Burnout Inventory* (2nd ed.). California: Consulting Psychologists Press.
- Masterton-Allen, S., Mor, V., Laliberte, L., & Monteiro, L. (1985). Staff burnout in a hospice setting. *The Hospice Journal*, 1(3), 1-15.
- Mastrain, K., & McGonigle, D. (1997). Older students perceptions of technology based learning assignments. *Online Journal of Nursing Informatics*, 1(2). Retrieved October 20, 2004, from <http://cac.psu.edu/~dxm12/percep.html>
- Matthews, S. (2000). *Overview of palliative care services in rural Western Australia*. Unpublished report.
- McCann, G. (1996). Speaking terms. *Nursing Times*, 92(15), 52.

- McCarthy, A., Hegney, D., Brown, L., Gibar, P., Brodribb, T.R., & Swales, J. (2002). Chemotherapy nursing practice in rural and remote areas. *The Australian Journal of Cancer Nursing*, 3(1), 4-11.
- McCarthy, A., Hegney, D., Brown, L., Gibar, P., Brodribb, T.R., & Swales, J. (2003). Characteristics of chemotherapy practice in rural and remote area health facilities in Queensland. *Australian Journal of Rural Health*, 11, 138-144.
- McConigley, R. (1998). *Rural palliative care nursing: A modified grounded theory study*. Unpublished masters thesis, Edith Cowan University, Churchlands, Western Australia.
- McIlpatrick, S.J., & Keeney, S. (2003). Identifying nursing research priorities using the Delphi technique [Electronic version]. *Journal of Advanced Nursing*, 42(6), 629-636.
- McNamara, B. (1996). Nursing concerns in hospice care organizations. *Cancer Forum*, 20(1), 19-30.
- McNamara, B., Waddell, C., & Colvin, M. (1995). Threats to the good death: The cultural context of stress and coping among hospice nurses. *Sociology of Health and Illness*, 17(2), 222-244.
- McWilliam, C.L., Burdock, J., & Wamsley, J. (1993). The challenging experience of palliative care support-team nursing. *Oncology Nursing Forum*, 20(5), 779-85.
- Mercer, D. (1996). "Can they walk on water?" Professional isolation and the secondary headteacher. *School Organization*, 16(2), 165 -178.
- Mills, N., Campbell, R., & Bachmann, M.O. (2002). Professional and organizational obstacles to establishing a new specialist service in primary care: Case study of an epilepsy specialist nurse. *Journal of Advanced Nursing*, 37(1), 43-51.
- Molassiotis, A., & Haberman, M. (1996). Evaluation of burnout and job satisfaction in marrow transplant nurses. *Cancer Nursing*, 19(5), 360-367.
- Mor, V., & Laliberte, L. (1984). Burnout among hospice staff. *Health and Social Work*, 9, 274-283.
- Morgan AK. (1997). Palliative home care in a rural setting: reflections on selective interactions. *Australian Journal of Rural Health*, 5(1), 22-25.
- Mount, K. (1992). Avoiding personal and professional isolation. *New Jersey Law Journal*, 132(13), 20.
- Munley, A. (1985). Sources of hospice staff stress and how to cope with it. *Nursing Clinics of North America*, 20(2), 343-355.

- Muus, K.J., Stratton, T.D., Dunkin, J.W., & Juhl, N. (1993). Retaining registered nurses in rural community hospitals. *Journal of Nursing Administration*, 23(3), 38-43.
- Nash, A. (1989). A terminal case? Burnout in palliative care. *Professional Nurse*, 4, 443-444.
- Noble, B., Hughes, P., Ingleton, C., & Clark, D. (2001). Rural palliative care needs: A survey of primary care professionals in Powys, Wales. *International Journal of Palliative Nursing*, 7(12), 610-615.
- Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric Theory* (3rd ed.). Sydney, Australia: McGraw-Hill.
- Ogus, E.D. (1990). Burnout and social support systems among ward nurses. *Issues in Mental Health Nursing*, 11(3), 267-281.
- Pallant, J.F. (2001). *SPSS survival manual*. St Leonards, Australia: Allen and Unwin.
- Palliative Care Australia. (1999). *Standards for palliative care provision* (3rd ed.). Canberra, Australia: Author.
- Palliative Care WA. (2003a). *List of services*. Retrieved May 8, 2003, from <http://www.palliativecarewa.asn.au/services/complete.html>
- Palliative Care WA. (2003b). *The organization, provision and future funding of palliative care in Western Australia: Submission to the Health Reform Committee*. Perth, Western Australia: Author.
- Pan, S., Dunkin, J., Muus, K.J., Harris, T.R., & Geller, J.M. (1995). A logit analysis of the likelihood of leaving rural settings for registered nurses. *Journal of Rural Health*, 11(2), 106-13.
- Parsons, L.C. (1999). Building RN confidence for delegation decision-making skills in practice [Electronic version]. *Journal for Nurses in Staff Development*, 15(6), 263-269.
- Patton, M.Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). California: Sage.
- Payne, N. (2001). Occupational stressors and coping as determinants of burnout in female hospice nurses [Electronic version]. *Journal of Advanced Nursing*, 33(30), 396-405.
- Payne, S.K., Coyne, P., & Smith, T.J. (2002). The health economics of palliative care. *Oncology*, 16(6), 801-808, 841-842.
- Plante, A., & Bouchard, L. (1995). Occupational stress, burnout, and professional support in nurses working with dying patients. *Omega*, 32(2), 93-109.

- Pedder, L. (1998). Training needs analysis. *Nursing Standard*, 13(6), 50-56.
- Peplau, L.A., & Perlman, D. (1982). Perspective on loneliness. In L.A. Peplau & D. Perlman (Eds.), *Personal relationships: Personal relationships in disorder* (pp. 1-18). New York: Academic Press.
- Peternelj-Taylor, C.A., & Johnson, R.L. (1995). Serving time: Psychiatric mental health nursing in corrections. *Journal of Psychosocial Nursing*, 33(8), 12-19.
- Pilkington, W., & Wood, J. (1986). Job satisfaction, role conflict and role ambiguity: A study of hospital nurses. *The Australian Journal of Advanced Nursing*, 3(3), 3-14.
- Pinikahana, J., & Happell, B. (2004). Stress, burnout and job satisfaction in rural psychiatric nurses: A Victorian study. *Australian Journal of Rural Health*, 12, 120-125.
- Polit, D.F., Beck, C.T., & Hungler, B.P. (2001). *Essentials of nursing research: Methods, appraisal and utilization* (5th ed.). Philadelphia: Lippincott.
- Rambur, B., Palumbo, M.V., McIntosh, B., & Mongeon, J. (2003). A statewide analysis of RN's intention to leave their position. *Nursing Outlook*, 51, 182-188.
- Rankin, S.L., Hughes-Anderson, W., House, J., Aitken, J., Health, D., Mitchell, A.W.S., & House, A.K. (2002, August 22). Rural residents' utilisation of health and visiting specialist health services. *Rural and Remote Health*, 2. Retrieved May 16, 2004, from http://www.regional.org.au/au/rrh/2002/020822_119htm
- Reding, D.J., Huber, J.A., & Lappe, K.A. (1995). Results of a rural breast health education demonstration project. *Cancer Practice*, 3(5), 295-302.
- Redman S., White K., Ryan E., & Hennrikus D. (1995). Professional needs of palliative care nurses in New South Wales. *Palliative Medicine*, 9(1), 36-44.
- Richardson, B., Kitchen, G., & Livingston, G. (2002). The effect of education on knowledge and management of elder abuse: A randomised controlled trial. *Age and Ageing*, 31, 335-341.
- Rivera, J.C., & Rice, M.L. (2002). A comparison of student outcomes and satisfaction between traditional and web based course offerings. *Online Journal of Distance Learning Administration*, 5(3). Retrieved October 20, 2004, from <http://www.westga.edu/~distance/odjla/fall53/rivera53.html>
- Rizzo, J.R., House, R.J., & Lirtzman, S.I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15, 150-163.

- Roberts, K., & Taylor, B. (2002). *Nursing research processes: An Australian perspective* (2nd ed.). Southbank, Australia: Nelson Thomson Learning.
- Rodgers, B.L., & Cowles, K.V. (1993). The qualitative research audit trail: A complex collection of documentation. *Research in Nursing and Health*, 16, 219-226.
- Rural Industries Research and Development Corporation. (2004). *Broadband adoption by agriculture and local government councils: Australia and the USA*. Retrieved October 29, 2004, from <http://www.ridc.gov.au/reports/HCC/04-127.pdf>
- Rushton, P., Nail, L., & Brown, S. (1997). Impact of continuing education on rural cancer nursing care. *Journal of Pharmaceutical Care in Pain and Symptom Control*, 5(2), 37-59.
- Russell, C., & Schofield, T. (1986). *Where it hurts: An introduction to sociology for health workers*. Sydney, Australia: Allen & Unwin.
- Sach, J. (1997). Issues for palliative care in rural Australia. *Collegian*, 4(3), 22-27, 41.
- Samaroo, B. (1996). Assessing palliative care educational needs of physicians and nurses: Results of a survey. *Journal of Palliative Care*, 12(2), 20-22.
- Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science*, 8(3), 27-37.
- Schank, J.A. (1998). Ethical issues in rural counselling practice. *Canadian Journal of Counselling*, 32(4), 270-283.
- Scott, K. (1991). Northern nurses and burnout. *Canadian Nurse*, 87(10), 18-21.
- Sellick, S.M., Charles, K., Dagsvik, J., & Kelley, M.L. (1996). Palliative care providers' perspectives on service and education needs. *Journal of Palliative Care*, 12(2), 34-38.
- Shaddock, A.J., Hill, M., & van Limbeek, C.A.H. (1998). Factors associated with burnout in workers in residential facilities for people with an intellectual disability. *Journal of Intellectual and Developmental Disability*, 23(4), 309-318.
- Shoho, A.R., Katims, D.S., & Meza, P. (1998). The alienation of special education teachers. *ERS Spectrum*, 16(4), 18-23.
- Shu, J., Goldlust, J., McKenzie, F., Struik, A., & Khoo, S.E. (1996). *Australia's population trends and prospects 1995*. Canberra, Australia: Australian Government Publishing Service.
- Silveira, J.M., & Winstead-Fry, P. (1997). The needs of patients with cancer and their caregivers in rural areas. *Oncology Nurses Forum*, 24(1), 71-76.

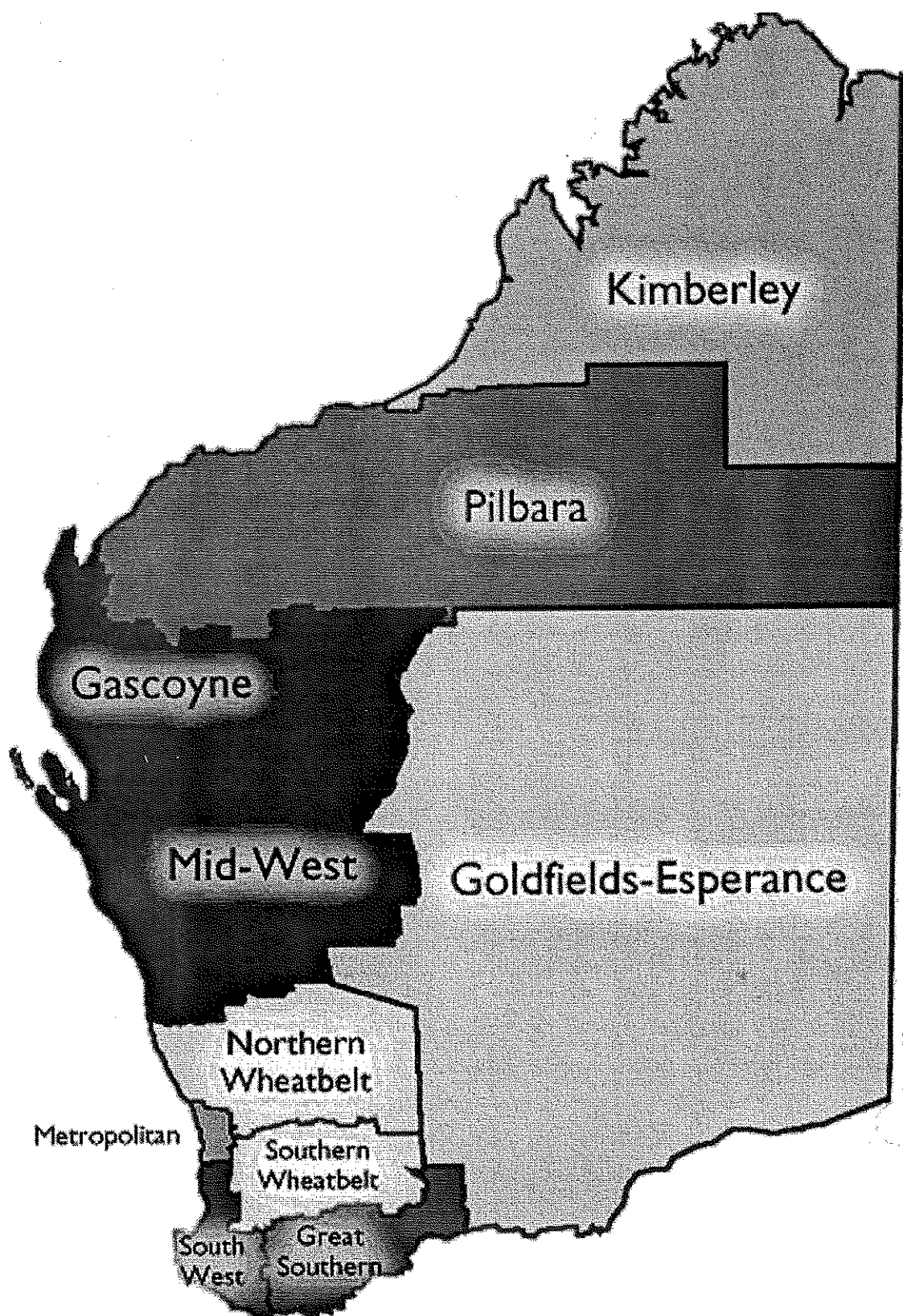
- Smith, M., & Yuen, K. (1994). Palliative care in the home - the GP/home hospice team. *Australian Family Physician*, 23(7), 1260-1265.
- Solomon, P., Salvatori, P., & Berry, S. (2001). Perceptions of important retention and recruitment factors by therapists in Northwestern Ontario. *The Journal of Rural Health*, 17(3), 278-285.
- Stancic, N., Mullen, P.D., Prokhorov, A.V., Frankowski, R.F., & McAlister, A.L. (2003). Continuing medical education: What delivery format do physicians prefer? *Journal of Continuing Education in the Health Professions*, 23(3), 162-167.
- St Clair, C., & Brillhart, B. (1990). Rural nurses as self directed learners: Overcoming obstacles to continuing education. *The Journal of Continuing Education in Nursing*, 21(5), 219-223.
- Strasser, R. (1995). Rural general practice: Is it a distinct discipline? *Australian Family Physician*, 24(5), 870-1, 874-6.
- Sullivan, T., Weinert, C., & Fulton, R. (1993). Living with cancer: Self identified needs of rural dwellers. *Family and Community Health*, 16(2), 41-49.
- Summers, S. (1993). Establishing the reliability and validity of a new instrument: Pilot testing. *Journal of Post Anesthesia Nursing*, 8(2), 124-127.
- Taormina, R.J., & Law, C.M. (2000). Approaches to preventing burnout: The effects of personal stress management and organizational socialization. *Journal of Nursing Management*, 8, 89-99.
- Thornton, R.N. (1992). Rural nursing practice. In G. Gray, & R. Pratt (Eds.), *Issues in Australian nursing 3* (pp. 121-132). Melbourne, Australia: Churchill Livingstone.
- Threlfall, T. (1997). *Cancer incidence and mortality projections for Western Australia 1996 to 2001*. Perth, Western Australia: Health Department of Western Australia.
- Threlfall T.J., & Thompson J.R. (2003). *Cancer incidence and mortality in Western Australia, 2001*. Perth, Western Australia: Department of Health.
- Threlfall T.J., & Thompson J.R. (2004). *Cancer incidence and mortality in Western Australia, 2002*. Perth, Western Australia: Department of Health.
- Tilden, V.P., Nelson, C.A., & May, B.A. (1990). Use of qualitative methods to enhance content validity. *Nursing Research*, 39(3), 172-175.

- Togno, J.M., Lundin, R., Buckley, P., & Hovel, J. (1996). Rural health and IT&T in Australia: The results of qualitative and quantitative surveys of the needs, perceptions and expectations of rural and remote health professionals. *Journal of Telemedicine and Telecare*, 2(Suppl. 1), 104-105.
- Tout, L.R., & Sharma, D.D. (1990). A burnout instrument for hospice. *The Hospice Journal*, 6(4), 31-38.
- Tovey, M.D. (1997). *Training in Australia: Design, delivery, evaluation, management*. Frenchs Forest, New South Wales: Prentice Hall.
- Trollor, J. (1995). Rural general practitioners and palliative care in the north-west of New South Wales. *Australian Family Physician*, 24(6), 1106-1113.
- Trollor, J. (1997). A survey of carers in the North West Health District of New South Wales. *Australian Social Work*, 50(1), 51-55.
- Turnipseed, D.L. (1987). Burnout among hospice nurses: An empirical assessment. *Hospice Journal*, 3(2/3), 105-119.
- Twycross, A. (1999). Pain management: A nursing priority. *Journal of Child Health Care*, 3(3), 19-24.
- Vachon, M.L.S. (1986). Myths and realities in palliative/hospice care. *Hospice Journal*, 2(1), 63-79.
- Vachon, M.L.S. (1999). Reflections on the history of occupational stress in hospice/palliative care. *Hospice Journal*, 14(3/4), 229-246.
- Van Boxel, P., Anderson, K., & Regnard, C. (2003). The effectiveness of palliative care education delivered by videoconferencing compared with face-to-face delivery. *Palliative Medicine*, 17, 344-358.
- Vernon, R. (2000). New initiatives for nursing education. *Vision*, 6(11), 33-35.
- Walsh, D., Donnelly, S., & Rybicki, L. (2000). The symptoms of advanced cancer: Relationship to age, gender, and performance in 1000 patients. *Supportive Care in Cancer*, 8(3), 175-179.
- Waltz, C.H., Strickland, O.L., & Lenz, E.R. (1984). *Measurement in nursing research*. Philadelphia: F.A. Davis Company.
- Warren, S.L. (1995). Specialty nursing council: A coalition of advanced practice nurses. *Clinical Nurse Specialist*, 9(5), 277-283.
- Webster, J., & Kristjanson, L.J. (2002). Long term palliative care workers: More than a story of endurance. *Journal of Palliative Medicine*, 5(6), 865-875.

- Western Australian Hospice and Palliative Care Association. (1996). *Palliative care in Western Australia to the Year 2001: Part Two, country services*. Perth. Western Australia: Author.
- Wilkes, L.M., & Beale, B. (2001). Palliative care at home: Stress for nurses in urban and rural New South Wales, Australia. *International Journal of Nursing Practice*, 7, 306-313.
- Wilkes, L.M., & White, K. (1998). *Support needs of rural families of cancer patients*. Nepean, Australia: University of Western Sydney.
- Wilkes, L.M., Mohan, S., White, K., & Smith, H. (2004). Evaluation of an after hours telephone support service for rural palliative care patients and their families: a pilot study. *Australian Journal of Rural Health*, 12(3), 95-98.
- Williams, M.A. (1989). Instrument development: Always unfinished. *Research in Nursing and Health*, 12(6), iii-iv.
- Williams, M.L. (1998). Making the most of learning needs assessments. *Journal for Nurses in Staff Development*, 14(3), 137-142.
- Williamson, P. (1996). *Let me die in my country: Palliative care needs of Aboriginal people in the Kimberley and Pilbara regions of Western Australia*. Perth, Western Australia: Health Department of Western Australia.
- Willis, E. (1991). Occupational stress and RANs. *Journal of Advanced Nursing*, 8(2), 89-95.
- Winters, C.A., & Mayer, D.M. (2002). An approach to cardiac care in rural settings [Electronic version]. *Critical Care Nursing Quarterly*, 24(4), 75-82.
- Wolfenden, K., Blanchard, P., & Probst, S. (1996). Recruitment and retention: Perceptions of rural mental health workers. *Australian Journal of Rural Health*, 4, 89-95.
- World Health Organization. (2004). *WHO definition of palliative care*. Retrieved September 22, 2004, from <http://www.who.int/cancer/palliative/definition/en/>
- Yates, P., Dewar, A., Edwards, H., Fentiman, B., Najman, J., Nash, R., Richardson, V., & Fraser, J. (1998). The prevalence and perception of pain amongst hospital in-patients. *Journal of Clinical Nursing*, 7, 521-530.

Appendix A

Health Regions of Western Australia



Approximate scale: 1cm = 120kms

Appendix B

Demographic Questionnaire

B About Yourself

C How old are you? _____ years

D Please indicate which health profession you work in :

- | | |
|---|---|
| <input type="checkbox"/> Occupational therapist | <input type="checkbox"/> Physiotherapist |
| <input type="checkbox"/> Social worker | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Nurse (please specify job title, eg. EN, CN) | |

E Please indicate approximately how many years you have been employed in your profession:
years

Please indicate approximately how many years you have been involved in providing
palliative care: _____ years

Please indicate the highest educational qualification you have achieved.

- | | |
|---|---|
| <input type="checkbox"/> Hospital based qualification | <input type="checkbox"/> Undergraduate degree (Bachelor) |
| <input type="checkbox"/> Postgraduate diploma | <input type="checkbox"/> Postgraduate degree (Master, PhD) |
| <input type="checkbox"/> Other (please specify) | |

F If you have a postgraduate degree or certificate, please indicate which specialty area you studied in.

.....

Please indicate the type of employment you are currently engaged in.

- | | |
|---|------------------------------------|
| <input type="checkbox"/> Full time | <input type="checkbox"/> Part time |
| <input type="checkbox"/> Casual | <input type="checkbox"/> Voluntary |
| <input type="checkbox"/> Not currently employed | |

G Please indicate the area that you work in.

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> Great Southern | <input type="checkbox"/> South West |
| <input type="checkbox"/> Wheatbelt | <input type="checkbox"/> Goldfields |
| <input type="checkbox"/> Gascoyne | <input type="checkbox"/> Midwest |
| <input type="checkbox"/> Kimberley | <input type="checkbox"/> Pilbarra |

Please indicate approximately what proportion of your time at work is devoted to palliative care.

- | | |
|---|---|
| <input type="checkbox"/> No time at all | <input type="checkbox"/> 1-24% |
| <input type="checkbox"/> 25-49% | <input type="checkbox"/> 50-74% |
| <input type="checkbox"/> 75-99% | <input type="checkbox"/> All of my time |

Please indicate the nature of the health service where you work MOST OFTEN.

- | | |
|--|--|
| <input type="checkbox"/> General Hospital | <input type="checkbox"/> Community based service |
| <input type="checkbox"/> Private practice | <input type="checkbox"/> Inpatient palliative care service |
| <input type="checkbox"/> Community palliative care service | <input type="checkbox"/> Other (please specify) |
| | |

Please indicate approximately how many palliative care patients you care for in a year.....

Appendix C

Learning Needs Assessment Tool

Learning Needs in Palliative Care

The following is a list of palliative care education topics. Please indicate your interest in learning more about each topic by circling the most appropriate number.

| | No interest | | | | | Very Interested |
|---|-------------|---|---|---|---|-----------------|
| | 0 | 1 | 2 | 3 | 4 | 5 |
| 1. Philosophies and principles of palliative care | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. Pain/pain management | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. Symptom control | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. Palliative care emergencies | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. Complementary therapies | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. Communication with dying patients and their families | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. Teamwork and team building | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. Stress management/self care | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. Ethical/legal aspects of palliative care | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. Quality management and palliative care standards | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. Bereavement issues | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. Programme evaluation | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. Multicultural palliative care | 0 | 1 | 2 | 3 | 4 | 5 |
| 14. Spiritual issues in palliative care | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. Management skills | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. Applying for funding | 0 | 1 | 2 | 3 | 4 | 5 |

Please list any other topics in palliative care that you would like to learn more about?

.....

.....

.....

Appendix D

Confidence in Palliative Care Measure (CPCM)

Confidence in Palliative Care

Please circle the degree of confidence you feel with the following dimensions of providing palliative care for your patients

| | | not relevant to me | not confident at all | not confident with many cases | confident with some cases | confident with most cases | confident with all cases |
|-----|--|-----------------------|-------------------------|-------------------------------------|---------------------------------|---------------------------------|-----------------------------|
| 1. | Relieving your patients' pain. | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. | Controlling distressing symptoms (eg. dyspnoea, nausea and vomiting) | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. | Using complementary therapies for the relief of symptoms. | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. | Managing palliative care emergencies (eg. haemorrhage, spinal cord compression). | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. | Communicating with people with a terminal illness | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. | Providing psychosocial care for your patients. | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. | Providing palliative care for people from another culture. | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. | Dealing with spiritual aspects of a terminal illness. | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. | Working with the families and friends of terminally ill patients. | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. | Providing bereavement care. | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. | Dealing with ethical issues in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. | Management and administration related to palliative care. | 0 | 1 | 2 | 3 | 4 | 5 |

Please comment on any aspects of palliative care that you find difficult.

.....

.....

Appendix E

Professional Isolation Measurement Scale (PIMS)

Working in Palliative Care

The following questions relate to aspects of your palliative care role. Please circle the number that you think best describes your feelings.

| | Never | | | Sometimes | | | Always |
|---|-------|---|---|-----------|---|---|--------|
| 1. I feel isolated working in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. My colleagues provide support for my palliative care role. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I have opportunities to debrief following a stressful incident in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I am satisfied with my role in palliative care | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. I can access a strong support network in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. I consider changing my profession. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. I would like to have more contact with other palliative care professionals. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. I would like more help with clinical decision making in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. I feel dissatisfied with my palliative care role. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. I consider stopping working in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. I feel stressed when working in palliative care. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. I would like to talk to other palliative care professionals. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. I would like to discuss my clinical decisions with other palliative care professionals. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. I think about looking for a job in a different field. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Appendix F

Pilot Test Evaluation

The following questions relate to the survey form itself.

How long did it take you to fill in this form?:minutes.

Were any parts of this form unclear or difficult to understand? If yes please explain the difficulties you experienced.

.....
.....
.....

Would you suggest any changes be made to individual questions? Please comment briefly.

.....
.....
.....

Do you think anything should be added to this survey form? Please comment briefly.

.....
.....
.....

Do you have any other comments about the study in general?

.....
.....
.....

If you have any further comments about this study, please do not hesitate to call me on 98 000 000(wk) or 98 000 000 (hm). I would be very happy to discuss this further with you. **THANK YOU FOR YOUR HELP**

Appendix G

Workshop Evaluation

You are invited to provide an evaluation of this workshop by completing the following form. Please circle the number that best describes your response to the prompt.

| | Strongly Agree | Agree | Uncertain | Disagree | Strongly Disagree |
|---|-------------------|-------|-----------|----------|----------------------|
| I found the pre-reading useful | 1 | 2 | 3 | 4 | 5 |
| The objectives of the workshop were outlined | 1 | 2 | 3 | 4 | 5 |
| The content of the workshop was appropriate for the objectives | 1 | 2 | 3 | 4 | 5 |
| The content of the workshop will be useful in my clinical practice | 1 | 2 | 3 | 4 | 5 |
| The content of the workshop contributed to my learning on the subject | 1 | 2 | 3 | 4 | 5 |
| The content of the workshop was interesting | 1 | 2 | 3 | 4 | 5 |
| I have been stimulated to do more reading in the area | 1 | 2 | 3 | 4 | 5 |
| The workshop was pitched at an appropriate level for my learning | 1 | 2 | 3 | 4 | 5 |
| The activities assisted my learning | 1 | 2 | 3 | 4 | 5 |
| I was able to cope with the amount of content in the workshop | 1 | 2 | 3 | 4 | 5 |

Additional Comments

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.....

.....

Appendix H

Over Handover Evaluation

Please indicate how much of the Over Handover package you have read/used

- | | |
|---|--|
| <input type="checkbox"/> None at all | <input type="checkbox"/> A little – less than one third |
| <input type="checkbox"/> A moderate amount - 1/3 to 2/3 | <input type="checkbox"/> A lot – more than 2/3 |
| <input type="checkbox"/> Have read it all | <input type="checkbox"/> Refer to it only when necessary |

Please circle the statement that best describes your feelings about the following books in the package

| | | | |
|------------------------|----------------|--------------------|-----------------|
| Pain management One | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Pain management Two | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Bowel Management | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Respiratory Management | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Final stages of life | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Nausea and Vomiting | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Wound management | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Bereavement | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Medications | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Community | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |

Please circle the statement that best describes your feelings about each section of the package

| | | | |
|-------------------------|----------------|--------------------|-----------------|
| Introduction | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Lesson plan | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Activities | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Case study | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Lecture notes | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Overhead transparencies | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Handout | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Recommended reading | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Reference list | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |
| Evaluation form | <i>Helpful</i> | <i>Not helpful</i> | <i>Not used</i> |

Please comment on any other facets of the Over Handover Package or Palliative Care Educators Workshop

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.....

.....

Appendix I

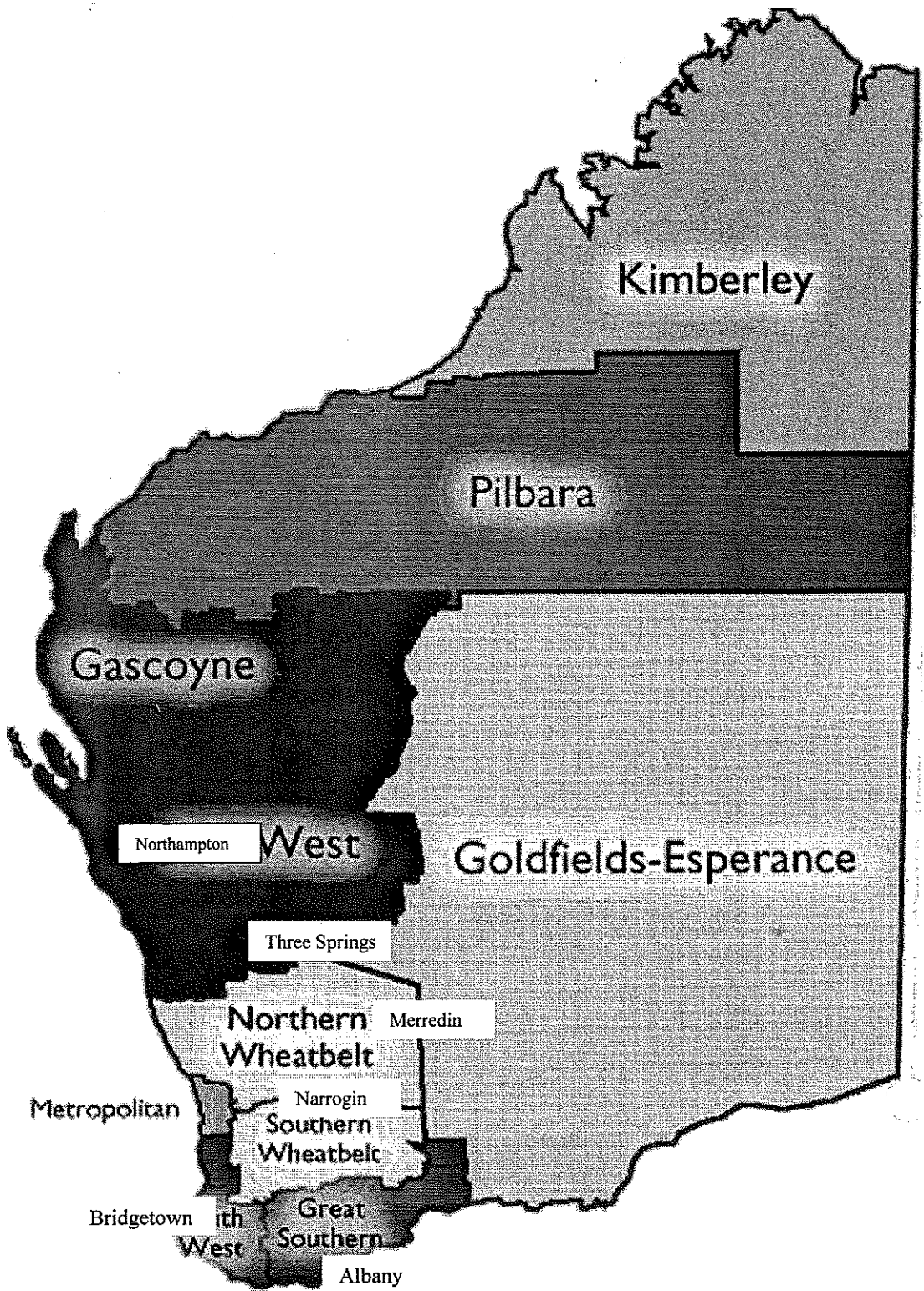
Exposure to Education Measure

Please indicate if you have accessed any of the following relating to palliative care in the last TWELVE months (Tick all relevant)

- ☐ Palliative care conference
- ☐ Short talk/lecture
- ☐ Video/teleconferencing
- ☐ Palliative care textbook
- ☐ Article in medical journal
- ☐ Palliative care dedicated journal
- ☐ Online education
- ☐ Other (please specify) _____

Appendix J

Map of Workshop Locations



Approximate scale: 1cm = 120kms

Appendix K

Workshop Flyer

Palliative Care Educators Workshop



This one-day workshop will help palliative care nurses who provide education as part of their role to develop their presentation skills. The workshop will cover a brief overview of new developments in palliative care, teaching tips and hints, and an introduction to the Over Handover palliative care education packages.

Date: 9th May 2001

Venue: Narrogin Regional Hospital

Time: 0900 – 1600hrs

Target Group: Palliative Care Nurses or Staff Development Nurses responsible for providing education about palliative care in their workplace.

Cost: \$75.00, includes lunch. All participants will receive a copy of the complete Over Handover palliative care education package.

Please send completed registration forms and payment by 2nd May to:

Ruth McConigley
PO Box



Email: rmcconig@student.ecu.edu.au

Phone/Fax: [Redacted]

Appendix L

Cover Letters for RPCNs

Ruth McConigley

[REDACTED]

[REDACTED]

6th April 2000

Dear Colleague,

I would like to ask for your assistance in assessing palliative care in rural Western Australia. I am a PhD student at Edith Cowan University, as well as being a palliative care nurse in the South West of Western Australia. I have a keen interest in the provision of services for rural palliative care providers, and am therefore conducting a survey of rural palliative care professionals to determine the current issues in palliative care practise.

The survey is in three sections. The first section (white) asks questions about your self. The second section (yellow) is concerned with your involvement in palliative care. The third section (gold) asks questions about your professional life as a whole. I anticipate that this survey will take you 15-20 minutes to complete. It can then be posted in the envelope provided. All of the information on this survey will remain anonymous, and you do not have to put your name on the survey form.

The information gained from this survey will be used to determine the education and support needs of rural practitioners involved in providing palliative care. If you have any questions about this research, or would like more information about the project, I can be contacted by telephone ([REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]) or by email rmcconig@student.ecu.edu.au. Alternately you can contact my university supervisor, Professor Linda Kristjanson, on [REDACTED]

Thank you for your help with this project.

Yours sincerely,

[REDACTED]

Ruth McConigley.

Ruth McConigley

[REDACTED]

[REDACTED]

[Date]

Dear []

Three months has already passed since you attended the Palliative Care Educators Workshop in []. It is now time for me to complete my final evaluation of this project. I have enclosed a survey form, and would be grateful if you could take the time to fill it in and return it in the envelope provided. All of the information on this survey will remain anonymous, and you do not have to put your name on the survey form.

If you have any questions about this research, or would like more information about the project, I can be contacted by telephone ([REDACTED]) or by email <rmcconig@student.ecu.edu.au>. Alternately you can contact my university supervisor, Professor Linda Kristjanson, on [REDACTED]

Thank you for your help with this project. I trust the project has been helpful for you in your clinical practice.

Yours sincerely,

[REDACTED]

Ruth McConigley, RN, BSc, MN.

Appendix M

Questionnaire Cover Sheet

Palliative Care in Rural Western Australia

A Survey of Health Professionals

This is an anonymous questionnaire. Please ensure that you do not write your name, or any other comments that will make you identifiable, on the attached. By completing the questionnaire you are consenting to take part in this research. As such you should first read the attached letter carefully as it explains fully the intention of this project.

Appendix N

Verbal Statement to Workshop Participants

The workshop that you are attending today forms part of a research project that I am conducting looking at what issues there are in rural palliative care nursing in Western Australia, and how those issues can be addressed.

As part of today's proceedings I would like to ask that you complete three questionnaires. Each asks a series of questions about yourself and your role in palliative care. You will be asked to fill in a form now, at the completion of the day, and in three months time.

You do not have to complete these questionnaires, and if you don't want to there will be no penalty – you are still very welcome to attend and enjoy today's workshop. If you do not wish to be involved in this project all that I ask is that you return your forms to the envelope. In this way I will know not to send you any more for the final survey in three months time.

The surveys are anonymous. To make sure that I do not know your identity please do not write your name anywhere on the form. The information you provide will be collated and used to form part of a research thesis, and may be published. Your name will never be associated with any of these publications.

Does anyone have any questions about this research?

I will now leave the room while you complete your forms. Could you please return them to the envelope here? Thank you.

Appendix O

Lesson Plan For Palliative Care Educator Workshops

Participants: Small group of RPCNs. May not know one another. Large variety of experience and

Rationale: Improve skill level of RPCNs in delivery of short, workplace based education sessions

Objectives: At the end of this workshop, participants should be able to:

- Describe the principles of adult learning
- Outline and discuss methods of presenting interesting education sessions
- Outline methods of overcoming difficult situations that may arise when delivering education sessions
- Discuss ways of dealing with difficult/disruptive audience members
- Demonstrate the ability to respond to controversial and/or topical questions
- Demonstrate understanding of the *Over Handover* package format.

Student Preparation: Pre-reading package to be posted 2/52 before workshop.

Programme:

| Time | Topic | Aids | Activities |
|-------------------|--|-------------------------------------|---|
| 0900 (5 mins) | Welcome and housekeeping | | |
| 0905 (5 mins) | Introductions | | |
| 0910 (20 mins) | Explanation of research and questionnaire completion | Coded questionnaires | |
| 0930 (30 mins) | Rural palliative care overview | Video: <i>Rural palliative care</i> | Group discussion: Q: Did this video reflect your experiences of RPCN? How? |
| 1000 (30 mins) | TEA BREAK | | |

| | | | |
|-------------------|--|-------------------------------|--|
| 1030 (90 mins) | Introduction to <i>Over Handover</i> package | <i>Over Handover</i> packages | Introduction to each package Discuss sections of package that may need clarification Explain format – demonstrate with Package 1 |
| 1200 (45 mins) | LUNCH | | |
| 1245 (45 mins) | Overview of adult learning theory | OHP Learning styles quiz | Group discussion of quiz results |
| 1330 (30 mins) | Tips for presenting | OHP Demonstration | Group discussion |
| 1400 (30 mins) | Barriers to presenting | OHP | Group discussion |
| 1430 (30 mins) | Dealing with difficult audience members | OHP | Group discussion Role play |
| 1500 (40 mins) | Controversial topics -euthanasia -opiate addiction | OHP | Group activity: working out some answers |
| 1540 (15 mins) | Questionnaire completion | Coded questionnaires | |
| 1555 (5 mins) | Sum up and Goodbyes | | |