THE EVALUATION OF A STRESS MANAGEMENT PROGRAMME FOR HOSPICE STAFF

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Christine Laurel Darkins

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Abstract

Nursing has long been recognised as a stressful occupation (Wynne, Clarkin, & McNieve, 1993). Literature clearly outlines the devastating psychological, physiological, and socio-economic effects of workplace stress but research has yet to find a clear answer to the management of stress. This research evaluated the effectiveness of a stress management programme for hospice staff, using a quasi-experimental, pre-test post-test, methodology with a participation and comparison group. The initial post-test was followed by a second post-test one month later to examine sustainability.

The participation group (n=18) made up of consenting hospice employees from a Northland hospice attended a stress management programme comprising of six two hour workshops on workplace stress, with the aim of providing them with the tools to address stress.

The comparison group (n = 18) was made up of consenting hospice employees from a South Auckland hospice who completed the pre-test and post-test 1 and 2 simultaneously with the participation group, but did not receive the intervention (the stress management programme). Matching of the sample was by occupation.

The outcome measurement of stress was measured using the Psychological Strain Questionnaire, a subscale of the Occupational Stress Inventory Revised

Version by Osipow (1998). Confounding variables considered were sample size, attendance rate, demographics, work related variables, stress related variables and the persons coping mechanisms.

Repeated measures analysis of variances showed that there was no significant difference in the stress levels between the participation and comparison group despite controlling for potential confounding variables. There was no main effect of time, $F(2, 64) = 1.95$, $p = .15$, nor group $F(1, 32) = .90$, $p = .35$. Therefore, the controlling for the effect of potential confounding variables had no effect on the initial findings, in that there was no significant difference found in the stress levels between the participation and comparison groups.

Although no statistical effect was demonstrated in relation to the stress management introduced, research into ways of addressing the issue of stress, must remain a priority.

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Chapter 1

Introduction

Clinical issue and background to the research question

As a new manager of a hospice in Northland, the writer has observed evidence of the emotional toll experienced by staff in their role of caring for the dying patient and their families. Within the writer's first week of employment, individual staff members reported that they were tired and woke frequently at night, worrying about the patients. One nurse stated that she did not know how much longer she could cope, because every time she came on duty another patient had died. Another said that she was losing her motivation because there was never enough time for true holistic nursing, because there was not enough staff. A third nurse acknowledged that sometimes she could not think clearly, since, everything the patient needed was so important, and the families watched her every action and hung on every word she spoke. On three occasions staff asked for help in putting these feelings behind them. These were anecdotal examples of what appeared to be work related stress.

Informal techniques used to overcome work related stress

Nurses within the service, also gave anecdotal accounts of strategies they had developed to overcome this work related stress. Random, informal interviews

with a number of nursing staff over the following two weeks, provided evidence of two common stress management techniques that had evolved amongst the staff, in the absence of any structured support or stress management programme.

Informal peer support

Informal peer support was a practice carried out when a staff member indicated to another staff member that they were experiencing unacceptable levels of *stress*. This informal arrangement was evidenced by the understanding that one staff member could call upon another at any time to take over, whilst time-out was obtained for the nurse experiencing the effects of stress. However, in reality, the nurses discussed that this was not always possible because of the limited number of staff available coinciding with a frequently high workload, acuity of patient and family needs and budgetary constraints within the hospice.

The practice of professional detachment or blocking behaviours

Blocking behaviours, or professional detachment, concerned the alleged ability of the individual nurse to develop a *separation* from the emotional experiences involved in any given situation, by creating a state of professional detachment, whilst endeavoring to maintain a caring and supportive environment for the patient and family. Ellis (1997) wrote of the historical practice of nurses' perceptions of emotional control being an important component of professionalism. Verbal examples of this practice included a nurse explaining

that often she felt like crying with the family when they were obviously upset. However she knew that if she did she would not be emotionally available to help the other patients and families in her care on the nursing duty because if she started to cry, she may not have been able to stop. Another older nurse explained that she was still coming to terms with the conflict of the teachings of her nursing apprenticeship concerning emotional control and task orientated nursing and her desire and need to practice in a holistic way for her terminally ill patients. This included sitting with them, holding their hand and sharing their grief with them.

Within the context of holistic palliative care, circumstances dictate that the nurse must attempt to play two roles simultaneously during the course of the intervention of care, one with the patient the other with the family. This in itself may be stressful for the nurse and distressing for the patient and family, if the roles are not executed consistently and well. Ellis (1997) urges that it is essential that nurses strive to understand and recognise their emotions as acceptable, just as the nurse would encourage the patient and family to do the same. However, the hospice nurses have indicated that they do need to control their emotions in order to complete their daily nursing duties and to balance the care of both the patient and family. The nurses also acknowledged that this form of detachment from the emotion that they truly feel has the potential to build up their feelings of workplace stress.

Formal attempts to overcome work related stress

Management at the hospice had obviously recognised a work related stress problem in the past, and the practice of staff requesting a debriefing following a particularly stressful death evolved over recent years. The practice became a formal arrangement to address the issue of work related stress, if and when requested by a member of staff. Clinical supervision was also tried on a formal basis.

Debriefing sessions

The purpose of a debriefing session, within this context, was to provide an opportunity for staff members to express their feelings and obtain some support under controlled conditions, following a stressful patient episode or death. There are many models of debriefing available. However, the model of debriefing used by the counselor, in this instance, was derived from Raphael (1986) and involved group discussion with all who were willing to attend the session. The session focused on the emotional experiences of those involved in the event, their role, training, preparedness for, and their experience of coping with the event, including their feelings and concerns for co-workers (Dawson, 1997). This process was aimed at identifying both positive and negative feelings and concerns, with a view to highlighting what went well and where improvements

could be made, in an effort to help the nurse deal with any outstanding stressful issues, and to emotionally close the event.

There was no element of formal education in this format, although the nurses expressed that they felt better after attending such debriefings. In the year 2000, such sessions were held on four occasions. Interestingly, during the same period, the hospice death statistic was 188 (North Haven Hospice, 2000).

The two conclusions that could be drawn from these figures are that hospice staff experienced very few particularly stressful patient deaths; or that the staff did not request debriefing sessions as often as they could have. Given that staff generally had reported feeling stressed by their work, it seems that the second conclusion is the most likely to be true. This conclusion is supported further by anecdotal evidence, that when held, the debriefing sessions were well attended by staff. The opportunity for staff debriefing is still current; however the practice of debriefing has never been formally evaluated.

Clinical supervision

Further investigation into the hospice-working environment showed that the nursing staff had the opportunity for clinical supervision provided by a nurse consultant from outside the organisation. Clinical supervision could be requested on an individual or group basis, on demand and was available for all nursing staff on a monthly basis. The intended purpose of this clinical supervision was to

allow the nursing staff the opportunity to discuss, in a confidential forum, any nursing difficulties surrounding patient and family care, in an attempt to enhance nursing practice. It has been acknowledged by the nursing staff, that few availed themselves of this opportunity. When asked their reasons for this, the majority of nursing staff explained that they were too busy or that they did not feel that the outside clinical supervisor was an appropriate person to help them, because she was not clinically current and had no recent experience in palliative care.

The clinical supervisor in question told the writer, that she too felt uncomfortable in the role, as the nurses would not express their concerns to her. She acknowledged that she found herself inventing scenarios in her attempts to establish a helpful dialogue with the nurses, but received non-committal answers to the questions she posed. The clinical supervisor then acknowledged that her sessions were not, at that time, meeting the needs of the nursing staff and indicated that she was unwilling to continue if she was not being effective.

The efficacy of the strategies used

No scientifically based, measurable, monitoring of the success or otherwise of these informal or formal techniques was carried out by management within the Northland hospice. Whilst it can be appreciated how and why these informal and formal techniques came about, there is reason for concern regarding their effectiveness within the context of the palliative care environment. Despite these informal and formal techniques, nurses still express feelings of stress.

The aims of this study

The aims of this study, therefore, are two-fold. Firstly, to introduce a stress management programme based on a variety of evidence based techniques, and secondly, to determine the efficacy of this programme in reducing work related stress for palliative care staff.

Chapter 2

Literature Review

Introduction to the literature review

The writers' work as manager at the Northland hospice led to the concern about the level of stress the staff appeared to be experiencing. Subsequent feedback from staff in relation to the level of stress experienced confirmed the need for research and development in this area. This issue prompted the writer to commence a literature review to understand and develop the research question relating to the availability and effectiveness of stress management programmes for palliative care staff. A literature search was carried out to address the following questions:

- What are the definitions of stress?
- What are the causes of workplace stress?
- What are the human and organisational effects of the stress experience?
- What are informal and formal workplace techniques to address the issue of workplace stress?
- What is the availability of current research documents on the effectiveness of stress management programmes for nurses, particularly those nurses engaged in the care of the dying?

Definitions of workplace stress

General definitions

Stress is a result of demands on a person's mental and physical energy, which causes them to suffer from feelings of not being able to cope with those demands (Thompson, 1995). Wynne, Clarkin, and McNieve (1993) explain that the concept of stress was originally derived from the engineering profession and related to the behaviour of materials in demanding conditions. The basic concepts can be applied to stress in humans and "occurs when the demands on people exceed their capacity to meet those demands" (Wynne, Clarkin & McNieve, 1993, p.1). Bootzin, Bower, Zajonc, and Hall (1986) see stress as a term without a precise meaning but related to any stimulus that places a strain on a person's psychological or physical ability to adjust.

Generally within the literature, definitions of workplace stress confirm the link between workplace stress and the inability of the person to meet the demands placed on them within the workplace. Wynne, Clarkin, and McNieve (1993) and Burger (1997) recognise a link between the demands of the workplace, the inability to cope with those demands and the manifestation of workplace stress. Palmer and Ellis (1999) suggest that stress should, in reality, be called distress as it includes all the anxious feelings created by people who are subjected to stressors, which result in an individuals' over-reaction or under reaction to those stressors, as they live or work. Palmer and Ellis indicate that it is part of life to

live with stress, noting that it is an over-used word and advocating the need for ways of creating "healthy tension " instead of " unhealthy distress " (1999, p.1).

The European Agency on Safety and Health at Work (1999) suggests that the lack of consensus on a definition of workplace stress has the potential to hamper research. However a search of the literature does show that there are commonalities amongst authors on the definition of workplace stress. In New Zealand, the Occupational Safety and Health Service (1998) define occupational stress in terms of the recognition by the person of not being able to cope with the demands of the working environment. MacBride (1983) suggests that workplace stress relates to a person's supplies and resources being unable to meet the demands of the work environment. However, these demands have the potential to become negative and distressing when the threshold between positive and negative stress is breached to the point where the person is not able to cope with the challenge they are confronted with, and at this point they feel stressed (Froggatt, 1997).

A definition explained by Wynne, Clarkin, and McNieve (1993) identify three aspects of the stress process, the source of stress in the form of demands, the outcomes of stress when capacity is exceeded and the coping process in terms of the persons' ability to meet those demands. These authors define coping as "the behaviours and actions taken to either manage demands, to alter the perceptions of stress or to manage the outcomes of stress" (Wynne, Clarkin & McNieve 1993, p.7).

Therefore, for the purposes of this research, stress is hereby defined specifically in terms of awareness by the person that the demands placed on them within the workplace, have reached a level whereby the person is unable to cope with the occupational demands in their life. The resulting emotional reaction is an impediment to their achievement of a normal emotional and psychological state.

The causes of workplace stress

Wynne, Clarkin, and McNieve (1993) explain, that most situations are capable of being stressful, and equally, that each person acts differently in similar situations, but stressful situations incorporate a range of organisational, societal, physiological and psychological, contributors. Wynne, Clarkin, and McNieve and Froggatt (1997) perceive that sometimes these factors can be seen as positive, in that the person may find challenges interesting and stimulating and an opportunity to problem solve. These contributors to stress can involve a range of events such as new situations, threatening situations, unpredictable situations, and situations involving change, uncertainty, monotony, challenge or lack of control (Wynne, Clarkin & McNieve, 1993). Adverse effects on health are said to occur most in occupations where constraints exist, which put the worker in situations preventing them from aligning the effort with the reward (Siegrist, 1996). Within the palliative care setting, Ellis (1997) prioritises some of the sources of workplace stress as associated with high patient death ratios, the frequency of life-death decisions, terminal care issues and response to patient / family despondency, and suggests that nurses need to be able to adapt and

actually put into practice, their ability to cope with the stress of caring for the dying patient.

The organisational causes of stress

Taylor (1986) determined that one of the leading causes of workplace stress is work overload. Work overload is associated with long hours, higher expectations of work standards, and too many tasks expected to be achieved in the working day, as well as a lack of clearly defined roles within the organisation, staff conflict and pressure to achieve: all of which cause a lack of control over the persons work. Cullen (1995) writes of the significant pressures which staff are not able to resolve for themselves because of organisational priorities and mandates, which are out of their control and thus cause tension and stress. The emphasis in the current working climate is associated with increased productivity and reduced staffing levels, resulting in longer and more pressured working hours for the remaining staff (Cullen, 1995). Various authors speak of the compounding issues relating to coping abilities of staff, which include the degree of control they have over their working environment and the amount of support they receive (Ellis, 1997; Oeij & Wiezer; 2002; Pearlin & Schooler, 1978). Cullen (1995) and Mzolo (2001) report of a societal trend throughout the western world, of a marked deterioration of employee mental health attributed to lack of job security, along with rising unemployment and organisational problems within the work-place, including constant restructuring and high staff turnover.

These uncertainties are attributed to causing workplace stress, anxiety, depression and low morale (Mzolo, 2001).

Organisational causes of stress within nursing

In an Australian study, Roger and Nash (1993) indicated that nursing has long been recognised as a stressful occupation. Wynne, Clarkin, and McNieve (1993) published a stress study report in Ireland, which indicated nursing is in a state of crisis, and those issues relating to the negative stress that nurses work under in the workplace need addressing urgently.

Cullen (1995), in a politically emotive article about nursing in general, discusses the effects of stress within nursing, asking why the nurse is to blame? She points out that management often blames nurses when they display signs of stress. The real blame, according to Cullen, is the toxic environment in which nurses' work, which is in response to health care systems that contribute to the accumulation of stress through constant restructuring, multiple regulations, reimbursement issues and the desire to offer more services with less human resources. Cullen associates stress with nurses having to lower their standards to meet politically driven organisational needs, and that the work that nurses perform is often devalued by society at large.

An American study by Kulbe (1999), replicating a study carried out by Duffy and Jackson (1996), looked at the order of priority of the perceived main

organisational stressors. Both studies highlighted the same five major stressors, but in different orders. Perhaps, surprisingly, the major stressor was not a lack of organisational support for staff, but was considered to be the amount of paperwork that had to be processed by staff. This result is consistent with North's (1999) discussion on the politics of administration and service delivery within the health service in the United States of America, when she states that one third of every health dollar is spent on administration. Kulbe's study indicated that stressors do vary between nursing disciplines, but the ongoing support of management within nursing, is a vital component in keeping work-place stressors at a manageable level.

Redman, White, Ryan, and Hennikus (1995) considered the professional needs of palliative care nurses, and carried out a survey of 108 participants in Australia, which found that, because of the nature of their task, these nurses were in particular need of organisational support. The survey found that stress in palliative care nursing came from a variety of sources, which include dealing with patient and inter-personal problems, other staff and organisational difficulties, and the need to cope with the dying patient on a frequent basis. Organisational difficulties included restructuring and loss of staff. The survey found that 47% of the nurses were physically exhausted from high workloads and 57% were emotionally stressed. However, and perhaps surprisingly, an overwhelming 63% indicated that a lack of opportunity for formal study was the most significant problem for them.

Newton and Waters (2001) found that overwork was a major stressor for community palliative care nurses in their recent study in the United Kingdom. Other stressors included relationship difficulties with other health professionals. They further identified that unique work related stressors were compounded when there was other organisational issues in existence. (Newton & Waters). Vachon (1997) identifies stressors within palliative care as including the death of patients, the grief of the families, too many patients dying within a short space of time, and the stress accumulated from the life experiences of carers themselves.

Societal causes of stress

General societal causes of workplace stress are associated with the employee's inability to achieve a balance in the demands of their private and working lives. For almost every employee there is a need to be employed, despite deteriorating work conditions such as longer hours and or shift work and the ever present need to balance these demands, with the need to managing personal finances and family life (Wynne, Clarkin & McNieve, 1993)

The effects of societal causes within nursing

Cullen (1995) considers stress from an emotional perspective, including effects such as feelings of powerlessness, failure, anxiety, isolation and fear. Wilson (1995) notes that the effects of long-term stress from minor issues can be just as damaging as those brought on by major issues. Ellis (1997) explains that

emotional exhaustion manifests itself in the carer when they perceive that they have no more strength to give to others, and the result of feeling emotionally drained over a period of time, can lead to a feeling of depersonalisation or emotional detachment from the source of stress. Within palliative care nursing, Tyler, Carroll, and Cunningham (1991) and Newton and Waters (2001), agree with the previous authors by pointing out that repeated exposure to tragedy, suffering and death could have a cumulative and counter-productive effect on the emotions and stress levels of nurses.

It could be suggested, that for a terminally ill patient within a hospice, quality of death is as much a successful outcome as a cure. However, it could be argued that society does not yet appreciate the value of a "good death" and often distances itself from death, in an effort to shut out reality (Gordon, 2001). These societal misconceptions stem from a 15th century definition of medical care as "to cure sometimes, to relieve often and to comfort always" and the misconception that patient death is a failure (Gordon, 2001, p.6).

Gordon (2001), speaking from a perspective of hospice care, aptly sums this up by explaining, that within western society, we have still not accepted that death is part of the process of living. This approach to death has left many people unprepared for and uncomprehending of death. It is the opinion of the writer that this lack of preparedness and understanding has the effect of magnifying the sense of loss and distress within the family. Everyone involved with the family feels the effects of this "magnified sense of loss and preparedness", particularly

the palliative care nurse who works closely with the family throughout the dying process.

Field (1989) found difficulty conceptualising why palliative care nurses chose to nurse in a field that contained a daily mix of complex emotions, family dynamics and death, and found that this intense and sustained contact with death by nurses involved in palliative care, has the potential to cause intense emotional stress. Clarke (1994) acknowledges that caring for the dying is a holistic experience, which involves not only physical care, but also psychosocial, spiritual and social experiences for all who take part in the process. Lederberg (1990) reports that adjusting to death comes in two phases for the nurse; the first involves controlling the emotional reactions experienced on a daily basis, while the second is the ability to unlock those emotions. If these do not occur then stress arises.

The effects of workplace stress

The European Agency for Safety and Health at Work (1999) indicate that workplace stress carries a considerable socio-economic impact and a human effect that is both physiological and psychological. Stress in the workplace contributes to higher rates of workplace accidents and illness (Bootzin, et al., 1986). Palmer (2000) elaborates further, by proposing that workplace stress involves a physiological, psychological and behavioural response by an individual when their perception is that the balance between the demands placed

on them and their ability to meet those demands is lacking. Roger and Nash (1993) suggest that the important issue is that a single event may be stressful to one person but may not have the same effect on another, while the key to managing stress is how one responds to it. However, Pearlin and Schooler (1978) believe that the individuals' coping mechanisms are not enough to counter workplace stress, as usually the individual does not have control over the demands of the environment in which they work.

Wynne, Clarkin, and McNieve (1993) confirm that stress levels within different workplaces, although varied and difficult to evaluate, are an important factor in determining job performance, job satisfaction, staff turnover and sick leave. However, literature confirms stresses expressed by palliative care nurses are not unique. Wilkes, Beale and Freeman (1998) spoke of weariness, and McWilliam, Burdock, and Wansley (1993) made mention of feelings of vulnerability. Field (1989) found difficulty conceptualising why palliative care nurses chose to nurse in a field that contained a daily mix of complex emotions, family dynamics and death, and found that this intense and sustained contact with death by nurses involved in palliative care, has the potential to cause intense emotional stress.

In two Australian studies, Roger and Nash (1993) point out that nursing has long been recognised as a stressful occupation and that a report by the Health Education Authority (1998) includes nursing as one of four high stress occupations, along with police, social work, and teaching. Payne, Dean, and Kalus (1998) carried out a study that highlighted the difficulties of comparing

the effects of stress between different facets of nursing, because of differing philosophies. They carried out a comparative study of the effects of death anxiety, between 23 Palliative Care nurses and 20 Accident and Emergency nurses. The criteria used to decide on the two areas for comparison, were that both the palliative care area and the Accident and Emergency area had similar death rates per year. The mean annual death rate in each area was 150 in the year of the study. Coping strategies were calculated from a semi structured interview and death anxiety was measured by a revised death attitude profile questionnaire, involving a 32-item standard of attitudes towards death.

The results indicated that hospice nurses appeared to have a low death anxiety, despite spending almost every day with the dying. The Accident and Emergency nurses showed signs of avoiding thinking about death and a greater fear of death. These findings are based on sound research, that appears thorough, but it does highlight how difficult it is to compare different aspects of nursing and get meaningful results because of the diverse nature of nursing (Payne, Dean & Kalus, 1998).

This literature search confirms that nursing is a high stress occupation, and that the effects of stress are well documented. A more recent area of research in this field is that of the effects of physiological stress.

The physiological effects of stress

Literature indicates that over the last 20 years, there has developed an assumption that stress has undesirable health consequences. Wynne, Clarkin, and McNieve (1993) acknowledge the link between stress and physiological symptoms, such as coronary disease, but warn that these conditions can be both influenced by other factors, as well as how individuals cope with stress. Clarke (1994) acknowledges that caring for the dying is a holistic experience, which involves not only physical care, but also psychosocial, spiritual and social experiences for all who take part in the process.

Palmer (2000) outlines the effects of stress on the human body, by describing a physiological response within the neurones conveying messages from the cerebral cortex in the brain, where the thought processes occur, to the hypothalamus at the centre of the brain. From this point, arousal occurs within the autonomic nervous system, and in turn the sympathetic nervous system prepares the body for action. Subsequent effects are increased heart rate, the inhibition of tears and digestive secretions, increased mental activity and dilation the pupils of the eyes (Palmer, 2000). The main sympathetic neurotransmitter, noradrenaline, is released at the nerve endings and the stress response also causes increased activity in the adrenal, pituitary and thyroid glands.

Wynne, Clarkin, and McNieve (1993) and Palmer (2000) elaborate that people who perceive that they are subject to stressful situations on an everyday basis; have as a result of the prolonged effect an impaired immune system. This increases the potential for high blood pressure, with resulting headache, alteration to the efficiency of the adrenal gland and sleep disturbances, as well as muscle weakness and digestive difficulties (Palmer, 2000). Wynne, Clarkin, and McNieve (1993, p.19) cite a British report that indicates that at age 45, nurses have a lower life expectancy than comparable female occupations, such as teaching, and social work, which they directly associate with the effects of stress. They suggest a positive correlation with workplace stress, and depression, anxiety, tension and tiredness.

The psychological effects of stress

Wynne, Clarkin, and McNieve (1993) suggest a positive correlation with workplace stress and depression, anxiety and tension and tiredness. The European Agency for Safety and Health at Work (1999), note that defining stress with a psychological emphasis has gained popularity, as a definition of work-place stress and considers this consistent with current thinking, and can be expressed in a variety of ways, including how a person behaves, thinks and feels. Vachon (1995) indicates that the effect of stress on a persons' well-being from a psychological perspective, is associated with their personality makeup, level of self esteem, emotional strength and how intact their coping mechanisms are.

Stress can be viewed from a psychological and cognitive perspective focusing on the feeling of not being able to cope (Cox, 1993; Lazarus, 1996). Stansfeld, Fuhrer, Shipley and Marmot (1999) suggest stress has the ability to alter the way a person thinks, behaves and feels, and potentially can have associated psychological and physiological effects. They note that the experience of stress is related to the individual's ability to cope with those demands.

Palmer (2000) explains the effect of stress on cognitive behaviour as causing feelings of having to perform well at all costs, that events are not fair, and of trying to stay in control of a situation and having the potential for cognitive distortions, such as extreme interpretations of thought involving thinking an occurrence is terrible or unbearable. Froggatt (1997) interprets this as distress, whereby extreme levels of emotional upset cause a range of symptoms from panic to depression. The cognitive effects of stress include a loss of confidence in ones' ability to cope, problem solve, think, make decisions, reason and to judge a situation in a balanced way (Bootzin, et al., 1986).

Psychological effects of stress within nursing

Many authors in the literature reviewed indicate that nursing is one of the occupations with the highest level of impaired psychological wellbeing. Wynne, Clarkin, and McNieve (1993) point out that the psychological manifestations of

stress are the most widely reported aspects of stress within the nursing profession.

Craughwell, cited in Wynne, Clarkin, and McNieve (1993,p1) indicates that nurses must not be ashamed to say that they are stressed and urges that if they do not, the consequences of not caring for themselves could be that they render themselves untrustworthy in caring for their patients.

From a psychological perspective, Cullen (1995) suggests the effects of long-term workplace stress for nurses include negative attitudes, irritability, risk taking, short attention spans and often over-activity. Wynne, Clarkin, and McNieve (1993) count the individual human cost of workplace stress within nursing, as contributing to lower self esteem, sleep disorders, feelings of inadequacy and irritability, and ultimately a feeling of not being able to cope with the job: an outcome that affects the nurse, patient and ultimately the organisation.

The socio-economic effects of stress

The European Agency for Safety and Health at Work (1999) reports that although some information does exist, there is not sufficient quantitative occupational health and safety data available to assess the extent and costs of occupational stress. A report in the Northern Advocate (2000) informs that British employers paid compensation of New Zealand 1.09 billion dollars for

work-place stress related claims in 1999. Donatelle and Hawkins (1989) state that in the United States of America, the cost of workplace stress related disorders is United States 150 billion dollars per year. Devereaux (2000) indicates that stress related illness could cost employers in New Zealand as much as three billion New Zealand dollars per year in poor performance, sick leave and missed deadlines.

Wynne, Clarkin, and McNieve (1993) highlight that, within nursing, the economic cost associated with stress could be found in rapid staff turnover, inter-staff conflict and reduced quality of patient care. In literature concerning nursing Mzolo, cites employer concerns about the epidemic incidences of stress related problems. These include high staff turnover, reduced productivity, low staff morale and a marked deterioration in the mental well-being of workers, resulting in higher health care costs for governments (2001, p18).

Stress relieving strategies

Stress relieving strategies can be both informal and formal. Informal stress relieving strategies involve attempts by staff to deal individually, or as a group, independently of any institutional involvement with the stress that they feel. These techniques can include informal attempts at peer support, within the group, or the use of blocking behaviours, on an individual basis, in an attempt to cope with workplace stress.

Formal strategies are those instigated by the management of the workplace and usually involve tried and tested techniques to manage stress and to provide the provision of support for the employee in their workplace. Examples of these include clinical supervision and debriefing programmes.

Informal peer support

Informal peer support has evolved in many organisations as a way of employees providing workplace support to each other. Literature suggests that the main purpose of this kind of support includes a sharing of information, feelings and thoughts, which allows for personal and professional growth, builds on team work and provides a way of evaluating work practices (Maguire, 1998).

McBride (1983) suggests that story- telling with colleagues at work breaks is the usual way that nurses support each other within the work environment, as colleagues can empathise with the distressing experience. However, Butterworth, Faugier, and Burnard (1998) suggest that mental anguish experienced on a daily basis by nurses, often remains unacknowledged by peers and management. Larson (1992) acknowledged that support from colleagues was very important to palliative care nurses, and considered colleague support to be of more value than support from friends and family, because of the potential to normalise distressing events within the workplace.

A phenomenological study carried out by Bryne and McMurray (1997) on hospice nurses perceptions of caring for the dying, recognised a supportive environment as an important factor in the nurses' ability to provide quality patient care. Aldrich (1999) supports these perspectives, when indicating that day-to-day events can accumulate, resulting in a sense of being overwhelmed by the effects of stress. However, he also suggests these feelings can be eased by thoughtful actions from someone who cares and takes the time to show it. Newton and Waters (2001) have indicated that lack of a supportive environment was also a reason why nurses failed to cope with the stresses of caring for patients.

The technique of blocking behaviours to block out stressors

Nurses within the Northland hospice describe blocking behaviours as the alleged ability of the individual nurse to develop a separation from the emotional experiences involved in any given situation, by creating a state of detachment from the stressor, in order to emotionally escape and thereby avoid the situation getting out of control.

Blocking behaviours are described by Ellis as "depersonalisation " (1997, p.200) and involves the person emotionally detaching themselves from the source of stress, and in the case of the nurse, minimising contact with patients and families, thus blocking out stressors. They also explain that for some who

experience work place stress, escapist strategies may not be professionally or personally acceptable (Ellis, 1997). The staff member then struggles to perform well, because they are mentally detached from their work (Cooper, Liukkonen & Cartwright, 1996). Field (1989) states that this form of detachment allows nurses to give less of themselves to the holistic care process.

Gowler and Parry, cited in Pilgrim (1983, p.87), identify three types of nursing blocking behaviours arising from the pressures of nursing within an environment that lacks support. The first, *easing*, occurs where nurses reduce patient contact time to a minimum, in order to spend more time supporting colleagues. The second, *freezing*, is exemplified by nurses disengaging themselves from the difficulties of patient health status, providing task-orientated or procedural care only, to avoid holistic involvement. Thirdly, Gowler and Parry describe *melting* is the behaviour whereby nurses distance themselves from conventional colleagues and get involved in inter-professional tension. Their attempt to cope is displayed through becoming critical of professional colleagues and the organisation.

Consequences of blocking behaviours

The literature suggests that blocking behaviours are negative and dangerous behaviours, and a counter-productive strategy for managing stress. The adoption of the strategy of *blockin*g by the nurse, whilst intended to lessen the affects of

stress experienced through dealing with terminal patients and their families, is found to be counter-productive in that the very nature of nursing requires the presence of a personal relationship between patient and nurse. The process of *blocking* seeks to detach the nurse from the patient's situation and the result is a conflict of emotions within the nurse (McAbee, 1991). It is suggested by Rogers and Nash (1993), that although stress cannot be determined by the single event itself, the key is not managing stress, it is to change how one responds to it, by providing the support and education needed to develop strategies to overcome these problems.

Booth, McGuire, Butterworth, and Hillier (1996) carried out a study of the level of perceived professional support within a hospice setting and the use of detachment or behaviours that block out emotional experiences by hospice nurses. Within this study, a lecturer provided hospice nurses with six training sessions on assessing terminal patients. The aim was to test the hypotheses that blocking behaviours of detachment, task orientated nursing and the avoidance of difficult emotional conversations, would be used more when patients disclosed feelings and less when nurses felt they had satisfactory professional support. Audiotape interviews determined the frequency of nurse's responses, which demonstrated *blocking* at a patient disclosure. The results indicated that blocking behaviours were most evident when patients did disclose their feelings, and less evident when the nurse felt that practical help would be available, if needed, in the form of professional support.

Formal stress management strategies

Debriefing and clinical supervision are formal approaches to provide support to staff within the workplace. Both these practices had been used within the Northland hospice. Clinical supervision had been used prior to the year of the research

The practice of debriefing

Samter et al. (1993) explain debriefing as a way of extracting facts, comments or recommendations from a person who has experienced a recent traumatic event. Within the context of critical incident debriefing, many studies have improved the effectiveness of group debriefing in reducing the negative psychological aftermath of critical incidents, especially in the emergency services of fire, police and ambulance (Bordow & Porritt, 1979; Chemtob, Tomas, Law & Cremmiter, 1997; Jenkins, 1996).

Raphael (1986) suggests debriefing, carried out immediately after a devastating event, can protect the attendee from further emotional harm by orientating the person back to reality within a formal session. The ability to discuss the horror of the event is considered a vital component in the resolution of the emotional impact of the incident (Everly & Mitchell, 1997; Raphael, 1986).

Flannery (1998) evaluated the emotional effect of patient assaults on staff, within an American psychiatric setting, by measuring the impact of debriefing within a multi-component crisis intervention approach, consisting of individual crisis counselling, group debriefings, counselling support and professional referrals. According to Flannery, positive outcomes of the multi-component approach included lower staff turnover, and rates of sick leave, as well as reduced medical, legal and worker compensation claims. The supportive environment led to an improvement in staff competency and, as a consequence, coping mechanisms grew, resulting in a 40% to 63% decrease in the frequency of assaults over a two-year period. The study concluded, therefore, that debriefing had a positive influence in helping the staff to cope (Flannery, 1998).

However, in contrast, opposing literature suggests debriefing is neutral (Deahl, Gillham, Tomas, Searle & Srinivasan, 1994; Dyregrov, Kristoffersen, & Gjestad, 1996; Griffiths & Watts, 1992; Hobbs, Mayou, Harrison and Worlock, 1996; Matthews 1998; Searle & Bisson, 1992). Mathews found no difference in stress reduction between assaulted staff members in a residential psychiatric care facility, where 14 staff members were debriefed and 18 were not. Hobbs et al, reported an insignificant difference in anxiety levels, post-traumatic stress disorders or depression levels in car accident victims in Britain, between the 54 people who were debriefed and the 52 who were not.

The conclusion drawn from literature is that debriefing is an essential tool in helping employees confront and begin to cope with stressful situations.

However, although generally literature remains inconclusive on the value of debriefing, it acknowledges that debriefing techniques are varied and hard to evaluate effectively. Dawson (1998) on the other hand, reports that while negative outcomes from studies of debriefing are significant, questions are raised concerning the methodology used in some of the study interpretations.

Debriefing sessions, in the context of the Northland hospice setting, provided an opportunity for staff members to express their feelings and obtain staff support, under controlled conditions, following a stressful episode of patient care or death.

Clinical supervision in the work place

Clinical supervision is explained by Jones "as meeting between two or more people who have declared an interest in examining a piece of work. The work is presented and they will together think about what is happening and why, what has been done and said, and how it was handled, could it have been handled better or differently and if so how?" (1998, p.905). Ellis (1997) sees nurse clinical debriefing as a valuable tool in improving care for the patients, families and the nurse. However, Cutcliffe (2000) believes that there are many unresolved issues surrounding clinical supervision, including the keeping of records, whistle blowing and confidentiality. Clark, Dooher, Fowler, Phillips, and Wells (1998) favour minimal record keeping, while Bond and Holland (1998) question the legality of record keeping, when clinical supervision is

taking place on site during working hours. Technically, the employer can then access these records and use them in any disciplinary action. This opportunity for breach of the confidentiality between the supervisor and the staff member, however unlikely, has the potential to be an uncomfortable and unsettling arrangement for both supervisor and attendees (Bond & Holland, 1998).

Jones (1995) supports these concerns, when he writes of the fears experienced by attendees when they felt obliged to divulge personal client based information from encounters, especially when the supervisor was a fellow health professional. Jones (1995) suggested this occurred particularly because the essence of clinical supervision involves support, clinical enhancement and education on an individual or group basis. However, the results of a recent qualitative study by Sexton-Bradshaw (1999), exploring the personal understanding and experiences of nurses in a Paediatric Intensive Care Unit in England, indicated that there was confusion by nurses over the meaning of supervision, as it was perceived as appraisal in another guise. The attendees did, however, acknowledge that clinical supervision had the potential to improve clinical practice by skill sharing, knowledge building and empowering nurses to take control of their individual practice.

Sexton-Bradshaw (1999) and Butterworth, Faugier, and Burnard (1998) point out that despite the importance organisations place on clinical supervision, few studies have been carried out, in general or within nursing, to measure its

effectiveness and suggest part of the problem is that nurses perceive clinical supervision as a negative managerial connotation.

Butterworth, Bishop and Carson (1996) carried out a study involving more than 300 people, to evaluate whether clinical supervision was good for one's mental well-being. The research followed a quasi-experimental approach, with one group of nurses and health visitors receiving clinical supervision during the experiment, and another group receiving no supervision. The measuring tools used were a series of recognised stress and coping scales. The study concluded that clinical supervision did not directly affect the attendee's mental well-being. However, they also went on to suggest that this may have occurred because the methodology was not sufficiently sensitive to change, or that the clinical supervision programme did not contain the ingredients to effect change in the attendees. They particularly noted that the 23 centres involved in the clinical supervision programme all provided their own programme content, which could indicate that the authors may not have had enough control over the experiment (Butterworth, Bishop & Carson, 1996).

Evaluation of the literature surrounding clinical supervision included the need to look closely at the advantages of having a supervisor from within the organisation, as opposed to an outside supervisor. Although the use of an outside supervisor was not considered satisfactory within the Northland hospice, from the staff's point of view, literature does suggest the view that the use of an outside supervisor has more positive results. Clinical supervision was a formal

practice, tried in the past but poorly attended within the Northland hospice setting. Introducing a stress management programme was the third formal strategy tried within the Northland hospice setting.

Stress management strategies

In reviewing the literature that surrounds stress management programme evaluation, it is evident that such programmes are varied in name, description and content, but generally do include elements that provide stress management education, relaxation, team building and lessons on coping mechanisms. The general aim of stress management programmes appears to be to equip the attendee with the necessary skills, to allow them to recuperate from the stress that they feel and return to their natural state, in order to prevent damage from dwelling on past upsets or trying to anticipate the future.

Roger and Nash (1993) defend the use of clinical work-place support programmes in order to uncover and begin to address unseen and underlying issues behind the individual's stress, pointing out that stress cannot be determined by the event itself, but by the way the person responds to it. Pearlin and Schooler (1978) urge that any stress management programme needs to be tailored to individual needs, by acknowledging that each person feels the effects of stress in different ways. The European Agency for Safety and Health at Work (1999) suggest that any stress management programme needs to be evaluated to measure effectiveness in reducing the levels of employee stress.

Stress management within nursing

Caplan (1994); Ceslowitz (1990); Kivisto and Couture (1997); Lees and Ellis (1990); McAbee (1991); McAbee (1994); Redman, White, Ryan and Hennikus (1995); Thomas (1995); Wilkinson (1994) and Woodhouse (1993) acknowledge that stress within nursing has been well researched and documented in nursing literature, but suggest that research on coping strategies and stress management programmes have been studied to a much lesser degree.

Other literature also associates coping with workplace stress with the provision of programmes that provide support (Pierce, Lakey, Sarason, & Sarason, 1997). Cronin-Stubbs and Brophy (1985) emphasised that staff that did not receive formal or informal staff support, did not cope well with workplace stress. McAbee (1991) provided a theoretical model designed to guide registered nurses in the management of stress. The research hypotheses were that occupational stress has a direct and positive influence on burnout (physical and emotional exhaustion as a result of too much stress) and that teaching personal coping strategies and providing staff support have a positive influence on addressing issues of stress. Although the research was thorough, the ten measuring tools suggested within the research, rendered the study somewhat complicated. However, McAbee (1991) pointed out that stress is a complex subject, and previous research has mostly investigated a singular concept of this complex subject, often providing contradictory results because of the simplicity of the

models underpinning the investigation. The use of proven, evaluated stress measuring tools is advocated by McAbee (1991) to provide validity. The study's findings supported the hypothesis that the provision of stress management programmes in the workplace had a positive influence on burnout and that staff did cope better with stress.

Ritter, Tolchard and Stewart (1995) carried out a pilot study, which aimed to show that participants who received stress management programmes were helped in coping with workplace stress and that there were positive long-term advantages in addressing issues of stress in a group situation. The sample was drawn from ward-based mental health nurses at the Bethlem and Maudsley Hospitals in England. The study had a quasi-experimental design, with a final randomised sample of 27 participants receiving a stress management programme and 26 members of a feedback group who did not receive the programme. Participants in the stress management programme attended five, two-hour group sessions held at weekly intervals, facilitated by a senior nurse and an assisting psychologist. Subject matter included warm-up exercises, personal life graphs, social role mapping, recognition of ones own support networks and goal setting. All participants completed questionnaires immediately following the intervention of the staff support group and again six months later. Research results suggested a workplace stress management based programme offered no significant advantage over a feedback only programme. Reasons for the result were that attendance was poor, with only three out of 24 participants attending all five programmes. Secondly, participants had not indicated prior to the

research that they were suffering from stress, and finally it proved more difficult to find consenting participants for the study than the researchers first envisaged.

In contrast, Wynne, Clarkin, and McNieve (1993) in a survey of nurses in Ireland, concluded that stress management programmes with an aim to reducing workplace stress have a major role within the workplace in helping staff cope with stress in a positive way. However, the findings indicated that stress management programmes were lacking in the workplace and that nurses generally perceived that management were unable to provide staff support. Reasons for these perceptions by nurses included a lack of training, work pressures and a culture within nursing that remains hierarchical and authoritarian. The perceived benefits of workplace support put forward by nurses included less stress, higher nursing standards, improved performance of the organisation and enhanced professionalism.

Wynne, Clarkin and McNieve (1993) advocate that to be successful, stress management programmes should be initiated in response to a need acknowledged by nurses, be facilitated by some-one who the nurses think is helpful, and highly structured so as to not allow interpersonal negativity (Wynne, Clarkin & McNieve, 1993). Indirect change could be achieved by education in nursing and training development, and a workplace leisure and relaxation plan that focuses on stress (Craughwell, in Wynne, Clarkin & McNieve, 1993, p.1).

Thomas (1995) provided a small English study in support of developing effective stress management systems within the workplace of the health care setting. Opinions from nurses were sought on the advantages and disadvantages of attending such programmes, and their views on the use of an outside facilitator. Thomas (1995) explained his motivation for the study, as being the low priority that nurses' needs were given within a national health service which suffered from constant restructuring, overstretched budgets, threats of job losses and change without consultation.

The research results concluded that the programme did not reduce the stress levels of the attendees. Variables that may have affected the outcome were that the programme was held every two to three weeks and, according to the nurses, within the nurses' busiest workload periods. The nurses also felt, that problems raised about the workplace were not acted upon, proving the importance of careful timing and planning of workplace support programmes in order for them to be effective (Thomas, 1995).

McAbee (1994) undertook a self-report survey on women's health, including how stress was managed within the workplace, with a focus in both the nursing and non-nursing fields. The aim was to prove the need to increase by more than 40%, the use of stress management programmes in workplaces employing more than fifty people. The use of similar reporting mechanisms and similarly structured workplace stress management programmes was a requirement of the study, in both the nursing and non-nursing workplaces. Following analysis of

the survey data, McAbee (1994) positively concluded that further investigation into the efficacy of programmes that are designed to support staff and to manage stress in the workplace was indicated. McAbee (1994) pointed out that any means of support offered by the employer to assist in decreasing stress might be considered of help to the employee.

Conclusions and validation of further research

The purpose of this review was to critique literature associated with stress experienced within the workplace, within nursing and in particular hospice/ palliative care nursing, and to assess the availability and effectiveness of existing stress management programmes. An abundance of literature exists describing, acknowledging and discussing the existence of workplace stress within nursing, while fewer studies have been carried out within the health profession into the effectiveness of workplace stress management initiatives.

Enquiries to other hospices in New Zealand, the Ministry of Health, Medline, the Cumulative Index of Nursing and Allied Health Literature (CINAHL) and existing research articles, indicated that there is little information available in New Zealand, or indeed worldwide, on stress management programmes that minimise or eradicate the effects of stress on palliative care nurses.

Although genuine attempts have been made within the Northland hospice to address issues associated with the complexity of caring for dying patients and

their families, in the form of formal and informal support practices, nurses still indicate that they are working under stress. It is the writers considered opinion that it is appropriate that research is carried out within the hospice setting, in the form of an educational programme designed to help the staff better understand workplace stress and its effects on health and well-being, and to provide strategies to assist staff to cope.

While it may not be possible to eradicate stress, managers do need to ensure nurses are provided with the tools to help them cope with the demands of clinical practice. A stress management programme for hospice staff must be designed to provide opportunities to develop the necessary skills and techniques to manage the effects of the work-place stress experienced. The intent in this research is to measure the effectiveness of such an approach, as part of good management practice, and to measure the benefit to staff.

The European Agency for Safety and Health at Work (1999) suggests the main evaluation of stress management programmes is to test if it is meeting the needs of the participants. To the writer's knowledge, the evaluation of the effectiveness of a stress management programme for hospice staff has not been carried out within New Zealand hospices before. The intent of this thesis was to determine the effectiveness of such a programme.

Chapter 3

Methodology

The research question

Stress within the health service work place has been acknowledged and documented in the literature. The study of stress management programmes that effectively reduce this stress has not been carried out in detail within the health professions.

Although it is not possible or desirable to completely eradicate stress, hospice staff need to be provided with strategies to help them cope with stress. Furthermore, the effectiveness of such strategies in reducing stress needs to be evaluated. The intention of the research is to test the following hypotheses:

- The Null Hypothesis is that there is no relationship between attendance at a series of stress management workshops and the level of stress that the attendees feel.
- The Alternate Hypothesis is that there is a relationship between attendance at a series of stress management workshops and the level of stress that the attendees feel.
- The Directional Hypothesis is that hospice staff who have attended a series of stress management workshops, demonstrate lower stress levels

in their post-test than in their pre-test, and lower stress levels when compared to the post-test of the comparison group.

Research method discussion

The research question comes under the broad category of evaluation research. Evaluation research is a research approach that intends to find out the value of a programme to the attendees (Carnwell, 1997). LoBiondo-Wood and Haber (1994) explain that evaluation research does not involve the use of a specific research design but uses a variety of research methods such as experimental, quasi-experimental or non-experimental research to evaluate a programme, policy, treatment or practice.

In pursuing quantitative research designs in evaluative research, the theoretical ideal involves the use of Randomised Control Trials to "measure the effectiveness of existing or developing services" (Carnwell, 1997, p.6). True experimental design involves a "scientific investigation that makes observations and collects data according to explicit criteria" (LoBiondo-Wood & Haber, 1994 p. 214). For Randomised Control Trials to be conducted, certain requirements are necessary in the design. Crucial to these trials is the use of randomisation, control groups and manipulation (Polit & Hungler, 1995).

Randomisation involves randomly assigning the sample subjects to the control and experimental groups, to ensure that each subject has an equal chance of being in either group (LoBiondo-Wood & Haber, 1994). Fourie, (2000) explains

that randomisation in control trials helps to prevent imbalances in the sample numbers assigned to different treatments, by ensuring that all the subjects have an equal chance of being in the trial. Bias is therefore minimised and a representative sample is more likely to be chosen for the research (Beanland, Schneider, LoBiondo-Wood & Haber, 1999). This process minimises the element of selection bias, which may have an effect on the dependent variable undergoing study (Beanland, et al., 1999).

Control means having one or several aspects that do not vary in an experimental study (Beanland, et al., 1999). The purpose of having a control group is to provide a comparison to the group who receive the experimental treatment (LoBiondo-Wood & Haber, 1994). The control group does not receive the experimental treatment.

Manipulation involves the use of some experimental treatment or the application of an intervention, to some of the study sample (Beanland, et al., 1999). The outcome of this treatment or intervention is then measured by comparing the impact it has on the experimental group, compared to the control group who are not exposed to the intervention.

In this research a full Randomised Control Trial was not possible because randomisation was not a feasible option. The major reason randomisation was not feasible for this research was cost. A programme could not be developed over a number of sites nationally, which may have allowed for randomisation.

This research could only involve two hospice services. There was a small target population in both locations to make up the participant and control groups (n = 55) and everyone in the Northland Hospice where the research was undertaken, needed to be in the participation group.

It was feasible within this research to meet the criteria of establishing a control group. Everyone in the Northland hospice service was provided with the opportunity to consent to be in the intervention group (named the participation group) and everyone from an Auckland Hospice was given the opportunity to consent to be in the control group (named the comparison group) (see Appendix A, p.96). The comparison group was selected by *matchin*g research participants in the control group with those in the participation group on key demographic variables.

Such a research approach to quantitative evaluative research is referred to as quasi-experimental research (LoBiondo-Wood & Haber, 1994). Fourie (2000) explains that quasi-experimental research designs are a form of quantitative research used to clarify relationships between variables or explain why certain events occur. The quasi-experimental design is used to examine causality in research where complete control is not an option (Beanland, et al., 1999). Quasi-experimental studies involve designs where random assignment is not used but the independent variable is manipulated and certain mechanisms of control are still used (LoBiondo-Wood & Haber, 1994). The selection of a quasi-experimental design is justified, therefore, in that it still exerts control on

the independent variable (the stress management programme), while using a sample with a control group.

The independent variable

The independent variable in this research is the stress management programme. It is the variable controlled or manipulated by the researcher and has the presumed effect on the dependent variable, in that the research compares those having the stress management programme with those not having it (LoBiondo-Wood & Haber, 1994).

The dependent variable

The dependent variable denotes the level of stress felt by the research participants. This outcome variable is measured following the manipulation of the independent variable (Roberts & Burke, 1989). It is determined by using a continuous measurement in the form of a validated and reliable psycho-metric scale, resulting from the use of the Personal Strain Questionnaire, a section of the Occupational Stress Inventory- Revised (Osipow, 1998).

A quasi-experimental pre-test, post-test design was used to deliver the Personal Strain Questionnaire before and after the introduction of the stress management programme for the participant group (see Figure 1, p.49). The research design used involved a singular pre-test for both groups and two post-tests, for both

groups. The pre-test is the measurement of baseline levels of stress from both groups, prior the introduction of the experimental intervention to the participation group. The purpose of the pre-test is to provide baseline data for measuring what affect the independent variable has (Beanland et al., 1999).

The post-test involves the measurement of the dependent variable after the experimental treatment has been carried out on the participant group (LoBiondo–Wood & Haber, 1994). The purpose of the post-test is to determine any variations in the level of stress felt by the participant group after the intervention has occurred. The same process of pre and post testing was applied to the control group. Both groups repeated the Personal Strain Questionnaire one month later, as the second post-test, to determine if the results of the initial post-test were sustainable (see Appendix B, p. 98).

Confounding variables

Beanland et al., (1999) and Cormack (1995) point out that a quantitative approach to evaluation research adds some stability to internal validity because of its capacity to measure numerically. Duigan, Dehar, and Casswell (1992) explain that the value of matching a quasi-experimental research method with evaluation research is to increase to the greatest extent possible, the certainty that the programme itself did produce observed changes, rather than other factors not related to the programme. However, despite this, there is a need to consider the possibility that factors other than the intervention may affect the

dependent variable. The use of a quasi-experimental methodology requires taking into consideration, a range of potential confounding variables. Confounding variables are possible factors that may influence the outcome variable, rather than the independent variable being considered (Roberts & Burke, 1989).

The study had a one-year timeframe for both groups, with all participants bringing to the research project ongoing outside influences and values. There is no control over major external stress related to life events affecting the participants over the period of the research. As part of the post-test, a question was asked of all participants: "Were there any major events that took place in your life which have affected your answers in the Personal Strain Questionnaire?" Those with positive answers to this question were compared statistically to those who gave a negative answer, to determine if major external stresses were confounding.

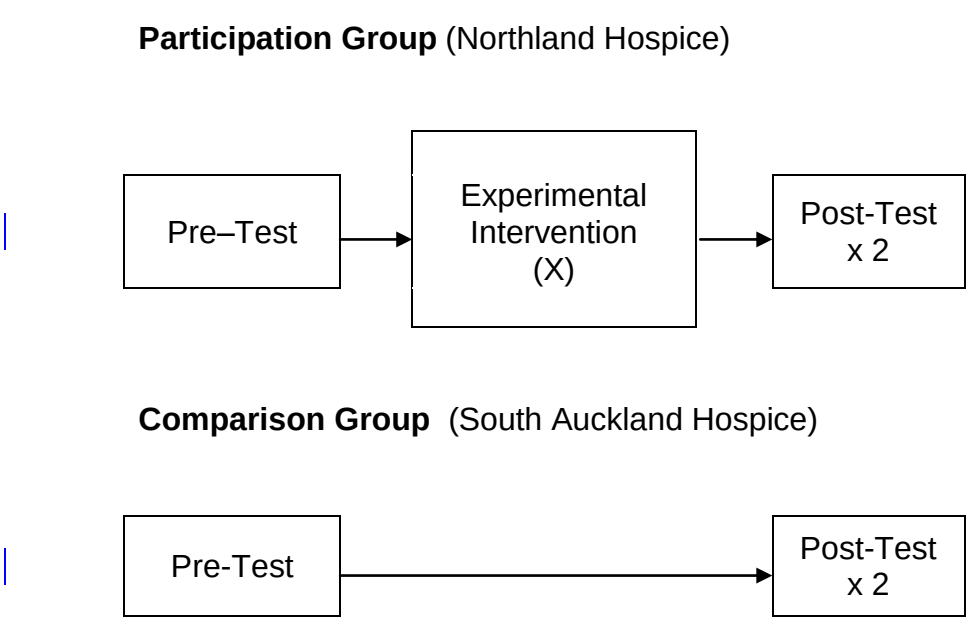
Other potential confounding variables included demographic variables. Although the sample was matched by occupational status (of nurse, administrative support staff, patient care staff and chaplaincy), other demographic variables such as matching age, ethnicity and length of service were not included in the matching process because of the difficulty of matching from a small sample group. Data on these details was collected in the demographic survey and an analysis was undertaken to determine the impact of these variables on the outcome measure of stress. However, care was taken to

carry out this research in hospices that were of similar size and with similar service delivery and patient load. The participants' normal coping ability was considered as a potential confounding variable and an attempt was made to measure this by using the continuous measurement gained from the measuring tool, the Personal Resources Questionnaire (Osipow, 1998).

Research design

Quasi-experimental theory was utilised in the following design, using a participation group and a comparison group sample from two hospices. Both the participation group (from a Northland Hospice) and the comparison group (from a South Auckland Hospice) completed the pre-test questionnaire at the same time, at their respective places of work. The participation group then commenced the intervention (the stress management programme), which was made up of six 2-hour workshops, held bi-monthly from January 2001, finishing in December 2001. The comparison group did not receive the stress management programme but were tested at the same times. In December 2001, following the completion of the programme for the participation group, both the participation and the comparison group completed the first post-test questionnaire at their respective places of work. One month later, both groups completed the second post-test questionnaire, the purpose of which was to see if the results were sustained.

Figure 1: Research Design



Sample

The sampling method involved inviting all members of staff (*n* = 25) from a Northland hospice to attend the Stress Management Programme. This group became the participant group. All staff members (n = 30) from a similar hospice, based in the South Auckland region, were invited to form a comparison group. The South Auckland hospice was approached to be part of the research because its service, delivery, workload and staffing levels were similar to the Northland hospice. The comparison group did not receive the stress management programme, but completed identical pre-test and post-test

questionnaires, at the same time as the experimental group. The comparison group had no formal programmes of stress management, clinical supervision or debriefing, prior to or during the year of the research.

Twenty-two consenting people made up the participation group. Each person in the participation group was matched with a staff member from the South Auckland hospice, who formed the comparison group. After matching, the comparison group had five extra people in their sample group, who were kept in the study to help counter any sample members in the comparison group who did not complete the study. The samples were matched by occupational status. The purpose of this matching was to obtain an equivalent comparison group, by involving subjects who were as similar as possible to the participation group (Beanland, et al., 1999).

Demographic description of the sample

Information on demographic variables was obtained from all participants; to enable matching between the groups and to enable analysis for the potential for confounding variables represents the main demographic details of both sample groups (see Table 3-1, p.51).

Table 3-1: Socio-demographic Characteristics of Sample

Characteristic	Northland n=18	Percentage	Auckland n=18	Percentage
Gender				
Male	1		1	
Female	17		17	
Age group (in years)				
26 – 35	1		2	
36 – 45	3		2	
46 – 55	10		8	
56 – 65	4		6	
Mean Age (in years)				
Standard deviation				
Ethnicity				
New Zealand European	15		18	
Maori	2		0	
Other	1		0	
Occupation				
Nurse	12		12	
Administration Staff	4		4	
Patient Care Support Staff	1		1	
Chaplaincy	1		1	

Table 3-1: Socio-demographic Characteristics of Sample

Characteristic	Northland n = 18	Percentage	Auckland n = 18	Percentage
Hospice Experience				
Up to 6 months	1		1	
From 6 months up to1 year	2		1	
From 1 year up to 2 years	1		0	
From 2 years up to 3 years	2		1	
From 3years up to 5 years	7		6	
From 5 years up to10 years	5		9	
Number of days worked per 5 day week				
5 days	5		5	
Between 3 and 4 days	10		11	
Between 1 and 2days	3		2	

In considering the demographic profile of the total number of the consenting participants (*n* = 36), 34 (94.4%) were female and 2 (5.6%) were male. The age range of the sample was from 26 - 65 years. The majority of the participants were in the 46-55 year age group (*n* = 18) (50%). Five (13.9%) were aged 36 - 45 years. Ten (27.8%) were aged 56 - 65, and three (8.3%) were aged 26 - 35 years. The mean for the group is 50.72 years, (*SD* = 10.0). The ethnicity of the sample of 36 was made up of 33 (91.6%) who self-identified as New Zealand

European, two who (5.6%) identified as being Maori; and one (2.8%) who identified as "other".

By occupation, 24 (66.7%) of the sample were registered nurses. Eight (22.1%) were administration staff, two (5.6%) were patient care support staff, and two (5.6%) were hospice chaplains. At the time of completing the demographic details, 2 participants (5.6%) had up to 6 months hospice experience; 3 participants (8.3%) had from 6 to 12 months hospice experience; 1 participant (2.8%) had from 1 to 2 years experience; 3 participants (8.3%) had between 2 to 3 years experience; 13 participants (36.1%), had between 3 and 5 years hospice experience; and 14 participants (38.9%) had from 5 to 10 years hospice experience. Eleven participants (30.5%) worked 5 days per week; 20 participants (55.6%) worked 3 to 4 days; 5 participants (13.9%) worked 1 to 2 days per week.

Intervention

The intervention was a stress management programme made up of a series of six - 2-hour workshops, held at a Northland hospice over twelve months, commencing in January 2001. The following eclectic model for the programme was developed, the content of which was informed by the literature review.

The programme content included an educational component, exploring an understanding of what stress is and highlighting the effects of stress on the

body. Also included were stress management exercises, and debriefing processes when stress occurs. Kivisto and Couture (1997) suggest that no single technique will address the problem of stress, but advocate combining stress management education with programmes such as relaxation techniques and crisis intervention, to counter the experience of workplace stress.

The format consisted of an empowering model that enabled the participants to determine the order and to some degree, the content, of future programmes. Literature suggests that stress can alter not only behaviour, but also how people feel and think (Stansfeld, Fuhrer, Shipley, & Marmot, 1999). The programme was therefore designed in a flexible way to allow for the participants, as a group, to raise stress related issues in the hope that the programme content would be timely in addressing issues that were problematic to the participants at that time.

Piling-Cormack (1996) explain that the use of a technique that encourages self directed participation, assists the attendees to determine what works for them, and encourages and empowers them in the knowledge that their input helps to steer the programmes direction. This technique is supported by Cox (1993) who considers that a healthy working environment is one where employees feel a balance between their workload and the degree of social support systems offered. Kivisto and Couture (1997) describe that individual feelings of stress feel like a “whirlwind” (p.33) and that the key to understanding, and therefore,

being able to counter or deal with this stress, is to understand the relationship between the person, the work situation and the environment at the time.

Implementation of the intervention

The assistance of a senior psychologist and a counsellor was negotiated to run the programme. Both had proven expertise and experience in facilitating this approach to stress reduction. The first stress management workshop was preceded by an invitation to all staff of a Northland hospice, giving them the following opportunities: to read the participation information sheet before deciding to participate in the study; to enter into the process of informed consent; and to complete the initial pre-test, if they consented. With the comparison group, the same process of information giving, informed consent and pre-testing occurred. If the person consented, demographic details were gathered and the pre-test questionnaire was completed.

The clinical area of the Northland Hospice agreed to fund the research in full, and a budget was developed, in consultation with the service area, to allow the staff in the participation group time off to attend the programme. The budget was viewed by the hospice accountant and submitted to the Hospice Board, where it was approved and funded accordingly. Items were grouped into set-up costs, programme costs and evaluation costs. Included in the budget were salaries, administration, venue hire and cleaning, professional fees, Koha, travel, postage, and printing (see Table 3-2, p.56).

Table 3-2: Budget [Report Date: April 2002]

Cost Centres	Allocation $	Expenditure $
Set-up Costs		
Salaries	200.00	185.00
Administration	60.00	55.00
Venue Hire	50.00	0.00
Travel	50.00	30.00
Telephone	20.00	15.00
Postage	10.00	6.00
Stationery	20.00	18.00
Subtotals	***$ 410.00***	***$ 309.00***
Programme of 6 Workshops		
Salaries	4,500.00	3,750.00
Administration	250.00	275.00
Venue Hire	360.00	360.00
Professional Fees	1,000.00	1,000.00
Koha	200.00	200.00
Travel	100.00	100.00
Postage	50.00	48.20
Printing	50.00	47.50
Cleaning	360.00	360.00
Catering	200.00	200.00
Subtotals	***$ 7,070.00***	***$6,340.70***

Table 3-2: Budget [Report Date: April 2002]

Cost Centres	Allocation $	Expenditure $
Evaluation		
Salaries	1,000.00	898.00
Administration	100.00	77.00
Professional Fees	400.00	280.00
Koha	100.00	125.00
Data Analysis	400.00	365.00
Travel	100.00	72.00
Stationery	50.00	38.00
Telephone	50.00	31.00
Postage	20.00	18.00
Catering	20.00	25.00
Cleaning	20.00	15.00
Subtotals	***$2,260.00***	***$1,944.00***
Totals	***$9,740.00***	***$ 8,593.70***

A quiet and private room was set aside, and a volunteer was engaged to provide afternoon tea. The staff decided that sessions should be held bi-monthly on a Wednesday from 1-30pm to 3.30pm, as they wanted to avoid Mondays and Fridays, because they felt that, most often, these days were their busiest. They preferred that the sessions were bi-monthly, the rationale being to allow time to think about the subject matter discussed and to incorporate any stress relieving education or relaxation exercises into their daily lives.

The measurement tool

The outcome measure to determine the level of stress experienced by the participants was the Psychological Strain Questionnaire; this is a sub-scale within the Personal Strain Questionnaire of the Occupational Stress Inventory (Osipow, 1998).

The Psychological Strain Scale contains 10 items which make up the pre-test and post-test for both the participation and comparison groups, and involves completing questions with answers chosen from a Likert scale format of 1-5, designed to measure stress. The questions can be answered as:

- 1 = rarely or never true,
- 2 = occasionally true,
- 3 = often true,
- 4 = usually true
- And 5 = most of the time (Osipow, 1998).

The response to each item was totalled to give an overall score of psychological stress. The maximum score = 10 times 5 = 50.

The participant's normal coping ability is a possible confounding variable in relation to the outcome variable of stress. Coping ability was also measured, using a subscale of the Occupational Stress Inventory-Revised version (Osipow 1998). The measurement of coping involves the four subscales within the Personal Resources Questionnaire section of the Occupational Stress Inventory-

Revised version (Osipow, 1998). The sub-scales include questions on recreation, self-care, social support and rational/cognitive coping. Each sub-scale of the Personal Resources Questionnaire is made up of 10-likert scale questions from 1-5, and each provides a maximum score of 50. The correlation of the Psychological Strain Questionnaire score with each of the scores from the subscales will determine the persons coping ability.

Discussion on the reliability and validity of the measures used

In order to assess validity or the degree to which the instrument measures what it is intended to, Osipow (1998) report that validity has been tested repeatedly in many professional journals with favourable results. Reliability studies were carried out on the internal consistency of the original version of the Occupational Stress Inventory (1987), resulting in the rewording and replacement of several questions to improve clarity. In total, 26 items were changed or replaced (Osipow, 1998). This new updated version made up the Occupational Stress Inventory-Revised version, (1998).

Osipow (1998) reports that validity data for the Occupational Stress Inventory-Revised (1998) has been vigorously tested using five principle sources. These are convergent validity studies, factor analyses, correlation studies of the relationships of the scales to variables of practical and theoretical importance, and studies using the entire or sections of the Occupational Stress Inventory-

Revised as outcome measures, following stress reduction treatment (Osipow, 1998). Many of these studies have been peer reviewed and published in professional journals. Osipow (1998) reports that measurement effects are minimised by the data collection procedures being clearly outlined in writing, so that the test procedures can be duplicated with new sample groups in the future.

Reliability is associated with the extent that the research instrument achieves consistent results on repeated measures (Beanland et al., 1999). Osipow (1998) indicates that internal consistency was also tested by analysing normative samples for alpha coefficient ratings. The alpha coefficient being a test of the level of significance, indicating that out of 100 tests, the number of times the null hypothesis would be rejected (LoBiondo-Wood & Haber, 1994). The Personal Resources Questionnaire rated an alpha coefficient of 0.93.

Ethical considerations

Ethical approval for carrying out the research was gained from the Auckland University of Technology Ethics Committee. As the research was undertaken in clinical services, written permission to do so was gained from the services involved. Written permission was obtained from the Northland Hospice Board of Trustees (see Appendix 4, p.103). Verbal permission, following consultation, was then gained from the manager of the Auckland Hospice for participation in the study as the comparison group.

A series of discussions were held with the Kaumatua of the Northland hospice to ensure that the process, content and presentation of the programme were culturally appropriate for staff of Maori decent. The blessing of the Kaumatua for the stress management programme and venue ensured that the programme began in an appropriate and focussed manner, with an emphasis on avoiding any unnecessary discomfort to the participants. Written support for the research was gained from the Kaumatua to the Northland Hospice (see Appendix 5).

The use of a psychologist, with stress management expertise, in the leadership role was another ethical consideration. He had proven skills to deal with very high levels of stress, and had many years experience in debriefing in critical incident situations within the health, police and fire brigade sectors in New Zealand and overseas. There was also provision made within the programme for counselling for participants, should they indicate a need. This provision was deemed necessary to ensure the safety of both groups, should their participation in the research bring to the surface any feelings of stress which required immediate professional intervention and / or referral.

Chapter 4

Results

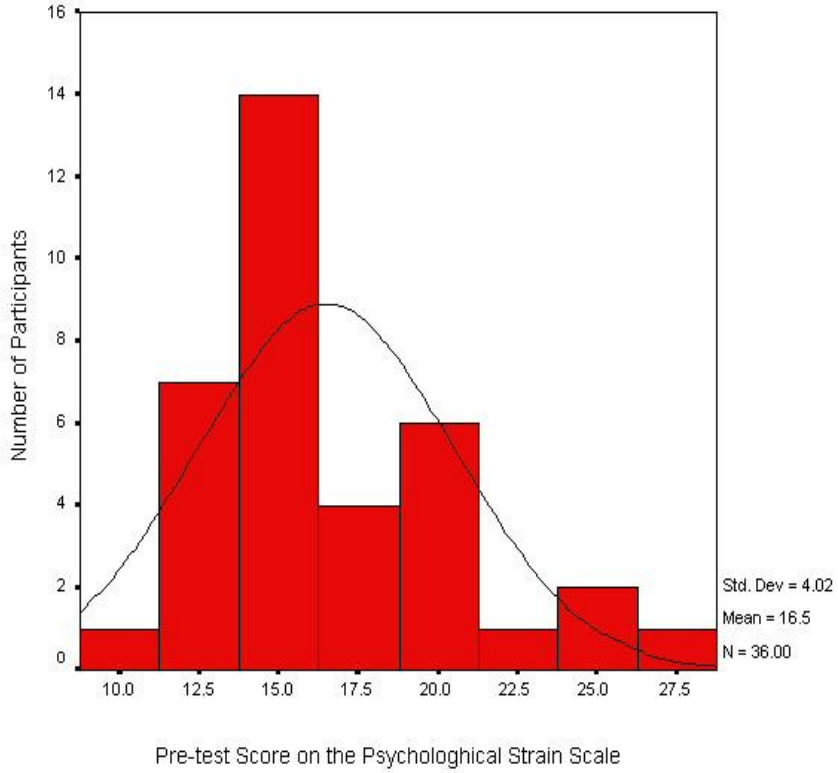
Response rate

A total of 18 people from each hospice (n = 36) completed all three parts of the research; the pre-test questionnaire and post-test 1 and 2. This response rate was from a combined total of 40 people who consented to take part from a total hospice population of 55 (72%). This number was reduced to n = 36, because one person from the participant group left her employment within the year of the research, and one person from the participant group did not meet the criteria of attendance at three or more stress management workshops. Correspondingly, two members of the comparison group were excluded to meet the shortfall.

Normal distribution of scores on the psychological strain scale

A histogram was constructed to determine the distribution of scores on the Psychological Strain Scale at the time of the pre-test (see Figure 2, p.63). The assumption of normality appeared justified, so parametric statistical analysis was carried out.

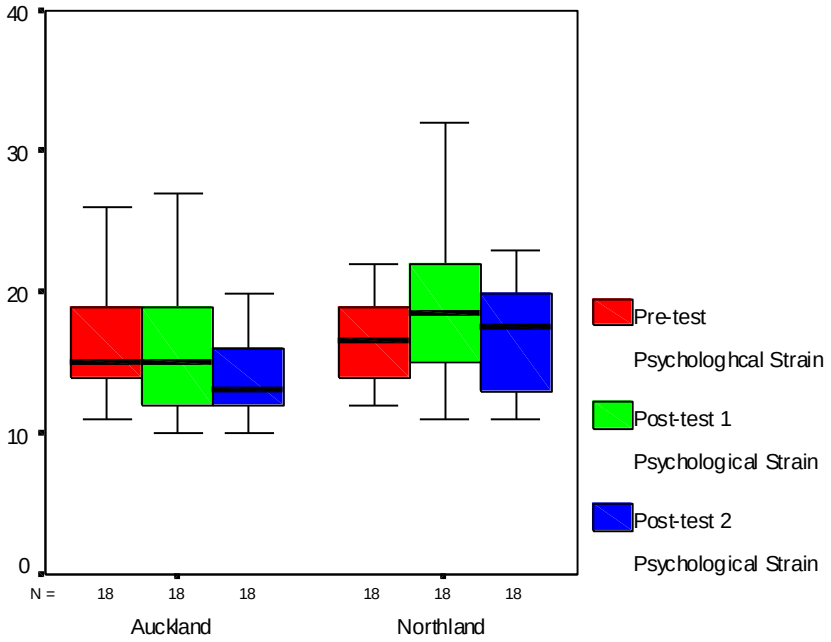
Figure 2: Pre-Test Score on the Psychological Strain Scale



Differences between the samples in relation to psychological stress

A box plot was constructed to explore any difference in the stress levels between the participant and comparison groups in their scores over the pre and post test points of measurement (see Figure 3, p.64). Although box plots focus on the median rather than the mean score, there did visually appear to be a difference with the Northland sample (participant group) experiencing higher levels of stress at all of the measurement times when compared to the Auckland sample (comparison group).

Figure 3: Box Plot of Pre-Test, Post-Test 1and 2 Psychological Strain Scores of the Sample Groups



Geographical Location Identification of Participants

Repeated measures analysis of variance was undertaken to test if the two groups differed significantly over the three measurement times. No significant interaction between group and time was found, $F(2, 68) = 1.66)$, $p = .197$. The main effects of time, $F(2, 68) = 1.67$, $p = .196$, and group, $F(1, 34) = 2.17$, $p = .15$, were also non-significant.

Potential confounding variables

There were several potential confounding variables considered in this study that could have influenced the results. These included demographic variables, work related variables, stress related variables and finally, the coping

mechanisms of the people concerned. These potential confounding variables were tested to determine if there were any significant differences in their presence between the two sample groups, which may have influenced the results obtained.

Demographic confounding variables

Although the sample was matched on occupational status, the data collected in the demographic survey on age and ethnicity was analysed to determine if these variables needed to be controlled for in further analysis. Fisher's exact test showed there was no significant difference between the age profiles of the participant and comparison groups (Fisher's Exact Test = 2.1, p = .66).

The same process was undertaken for categories of ethnicity, and there was no significant difference between the two groups on the basis of ethnicity (Fisher's Exact Test = 2.0, p = .74). Thus, neither variable was considered in further analysis.

Work related confounding variables

Work related variables considered in the study were the number of days worked per week and the length of hospice experience. Again, the expected values in some cells of the contingency tables were small, and a Fisher's Exact Test was undertaken to test for an association between groups and (1) the

number of days worked per week and (2) the length of hospice experience. For the number of days worked per week, the value of the Fisher's Exact Test = 1.4, p = 1.0. For the length of hospice experience the value of the Fisher's Exact Test = 4.5, p = .22. Therefore, there was no significant difference between the samples on the basis of work related variables considered. Thus, neither variable was considered in further analysis involving potential confounding variables.

Stress related confounding variables

Stress related variables considered in the study concerned major stressors occurring during the year of the study and previous stress management experience.

A total of six people (3 from the participant group and 3 from the comparison group) answered affirmatively to the question: "Were there any major events that took place in your life which have affected your answers in the Occupational Stress Questionnaire?" The major stressors were: a death in the family, poor health, childbirth, menopause and adult children moving back home. There was no association between group and external stressors. Fishers Exact Test for the question of external stressors = 1.0, p = .67.

A total of seven people indicated that they had previous stress management training (3 from the participation group and 4 from the comparison group). For

previous stress management experience, the value of the Fishers Exact Test = 1.0, p = .50. Therefore, there was no significant difference between the samples on the basis of the stress related variables was considered. Thus, neither variable was considered in further analysis involving potential confounding variables.

Coping mechanisms

Osipow (1998) considered four distinct components of a person's ability to cope with stress. These are:

- Recreation, which relates to the persons ability to take advantage of recreational and leisure activities that are relaxing and satisfying to them.
- Self Care, which is the ability to sleep well, exercise regularly, practice relaxation techniques, eat a balanced diet and avoid harmful substances
- Social Support, which centres on being helped to cope with stress, by having someone who can be relied on for support through problems.
- Rational/Cognitive Coping, which involves having the ability to systematically problem solve as a means of avoiding stress.

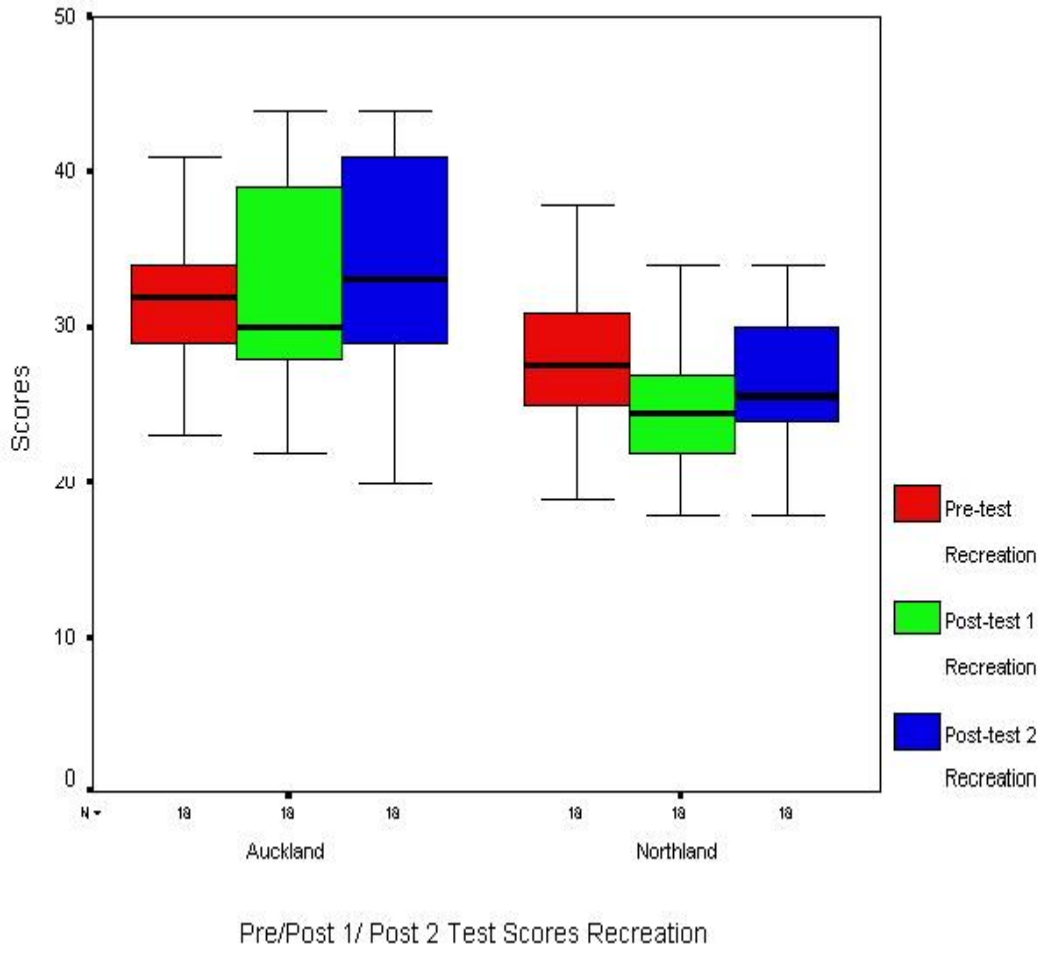
These four distinct components are measured in the 4 subscales of the Personal Resources Questionnaire (Osipow, 1998). There are 10 questions in each sub-scale, each worth a maximum of 5 points. The maximum possible score for each of these subscales is therefore 50 (see appendix A, page 97). The level of

coping was compared between the groups to determine if any of these variables need to be controlled for in further analysis.

Differences between the samples in relation to recreation

A box plot was constructed to explore any differences in the scores on the Recreation subscale at the pre- test, post-test 1 and post- test 2 (see Figure 4, p.68).

Figure 4: Box Plot of Pre-Test, Post-Test 1and 2 Recreation Scores of the Sample Groups



Repeated measures analysis of variance was undertaken over the three measurement times. No significant interaction between group and time was found, $F(2, 68) = 2.79$, $p = .07$. The main effects of time $F(2, 68) = .23$, $p = .79$ was non- significant, but the main effects of group was significant, $F(1, 34) = .23$, $p = < .001$. Therefore, this variable needs to be controlled for in relation to determining the psychological stress between the two groups.

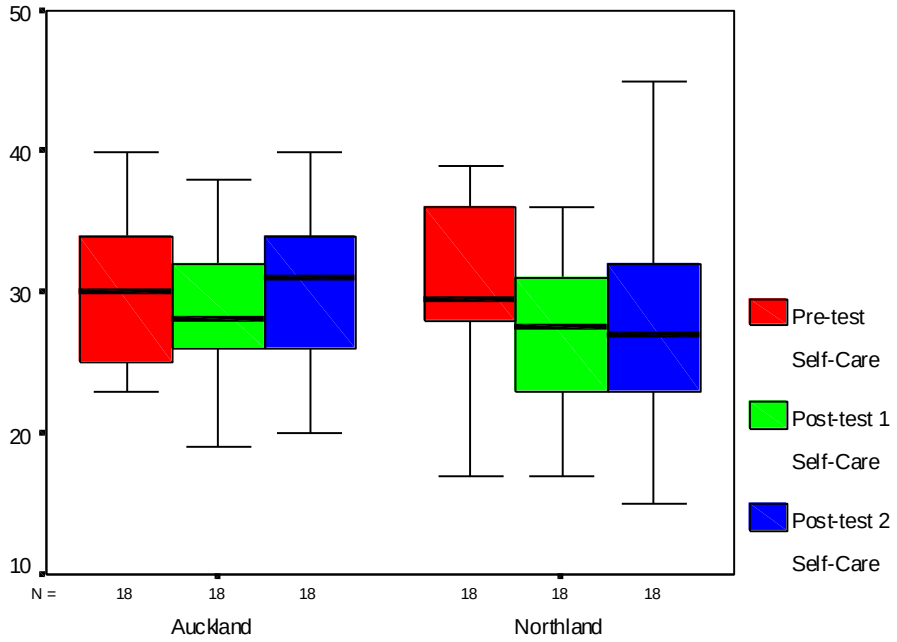
Differences between the samples in relation to self care

A box plot was constructed to explore any differences in the stress levels between the participant and comparison groups in their scores in the area of self care at the pre test, post-test 1 and post-test 2 points of measurement (see Figure 5, p.70).

Osipow (1998) indicates that the lower the score, the less developed are the coping abilities associated with sleep, regular exercise, relaxation techniques, a balanced diet and avoidance of harmful recreational substances.

A repeated measures analysis of variance was undertaken over the three measurement times. No significant interaction between group and time was found, $F(2, 68) = .69$, $p = .5$. The main effects of time $F(2, 68) = 1.18$, $p = .31$, and group, $F(1, 34) = .31$, $p = .58$, were also non-significant. Therefore, this variable did not need to be controlled for in relation to determining the effect of the stress management intervention on psychological stress.

Figure 5: Box Plot of Pre-Test, Post-Test 1and 2 Self-Care Scores of the Sample Groups

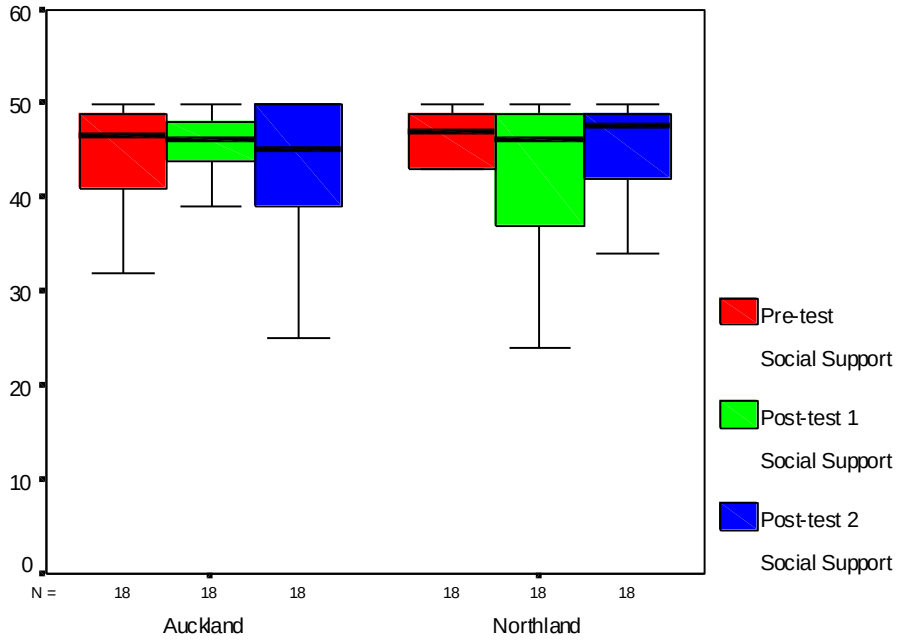


Pre/Post 1/ Post 2 Test Scores Self Care

Differences between the samples in relation to social support

With social support, the same process was repeated. The box plot did not appear to show much difference between the two groups at the times of measurement (see Figure 6, p.71). The repeated analysis of variance at the three measurement points showed no significant interaction between group and time $F(2, 68) = .75$, $p = .46$. The main effect of time, $F(2, 68) = .07$, $p = .92$, and group, $F(1, 34) = .27$, $p = .61$, were also non-significant. Therefore, this variable was not considered further in testing for possible confounding.

Figure 6: Box Plot of Pre-Test, Post-Test 1and 2 Social Support Scores of the Sample Groups

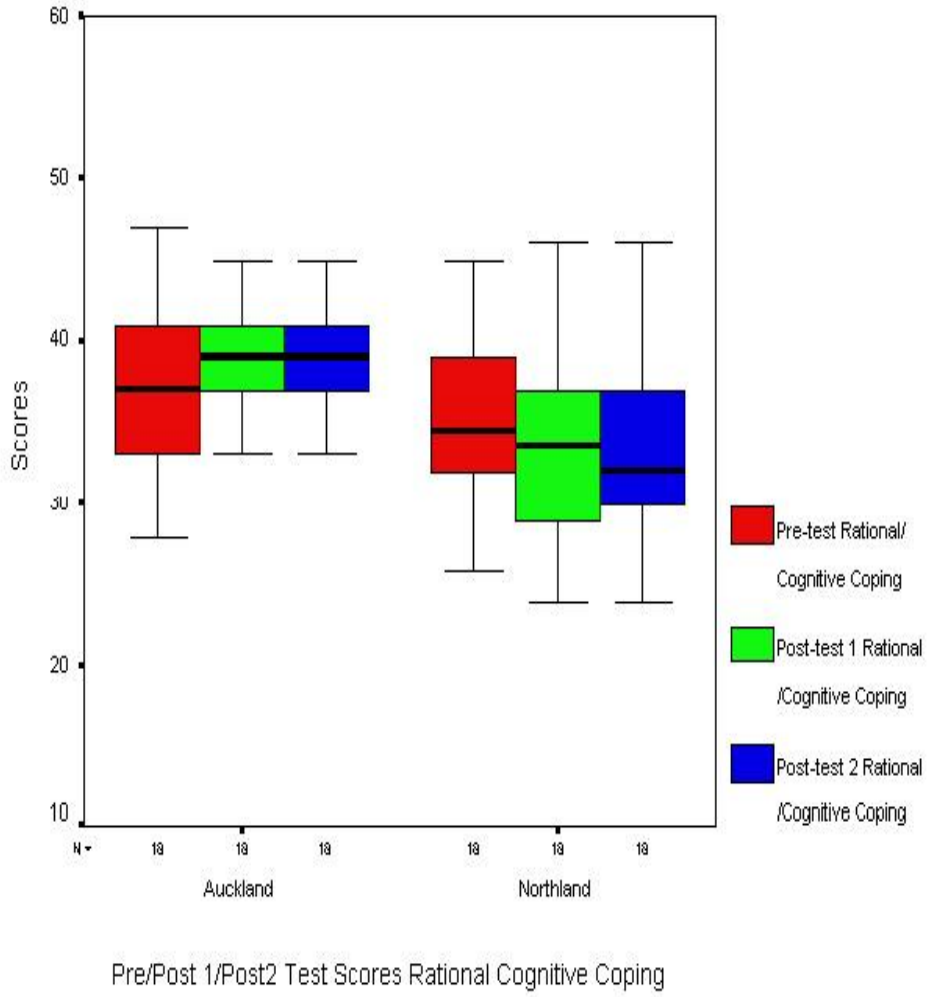


Pre/Post 1/Post 2 Test Scores Social Support

Differences between the samples in relation to rational/cognitive coping

Finally, the same process was repeated for Rational/Cognitive Coping. Visually, there appeared to be a difference between the two groups, with the participant group obtaining lower scores. Osipow (1998) indicates that the lower the score, the less ability the person has to systematically problem solve, to prioritise and to think problems through. This reduced ability affects peoples' ability to cope with stress (see Figure 7, p.72).

Figure 7: Box Plot of Pre-Test, Post-Test 1and 2 Rational Cognitive Coping Scores of the Sample Groups



Repeated measures analysis of variance was again undertaken over the three measurement times. No significant interaction between group and time was found, $F(2, 68) = 1.64$, $p = .2$. The main effects of time, $F(2, 68) = .24$, $p = .78$, was non-significant, but the main effects of group was significant, $F(1, 34) = 8.64$, $p = .006$. Therefore, this variable was controlled for in subsequent

analyses to assess the effect of the stress management intervention on psychological stress.

Effects of potential confounding variables

Of all the variables considered, only two were statistically different between the two groups. Therefore, the initial analysis of potential confounders, then the analysis of co-variance, was undertaken again to determine the impact of these two variables. This involved controlling for the effects of recreation and rational/cognitive coping abilities. The analysis of co-variance showed no interaction between time and group, $F(2, 64) = 2.47$, $p = .93$, and time and Rational Cognitive Coping (RC), $F(2, 64) = .57$; $p = .56$. There was no main effect of time and time and recreation $F(2, 64) = 1.05$, $p = .35$. There was no main effect of time, $F(2, 64) = 1.95$, $p = .15$, nor group $F(1, 32) = .90$, $p = .35$. Therefore, the controlling for the effect of potential confounding variables had no effect on the initial findings, in that there was no significant difference found in the stress levels between the participation and comparison groups.

Chapter 5

Discussion

Discussion of the study

The purpose of this year-long research study was to evaluate the effectiveness of a stress management programme (consisting of six workshops), in reducing workplace stress in a group of hospice staff in Northland. A quasi-experimental, pre-test, post-test research design was developed, which involved a comparison group from an Auckland hospice, which was not exposed to the intervention. The Psychological Strain Scale of the Personal Strain Questionnaire of the Occupational Stress Inventory (Osipow, 1998) was used to measure the effect of the intervention in reducing stress. Contrary to the researcher's expectations; the group receiving the intervention had no significant reduction in their levels of stress, compared with the comparison group, over the test period. Therefore, the stress management programme was not shown to be statistically effective in reducing workplace stress in the participant group.

A range of potential confounding variables was considered in the study to determine the influence they had, if any, on the findings obtained. These included demographic variables, work related variables and stress related variables, and the coping mechanisms of the participant group. Only aspects of

normal coping ability were considered as a possible confounding variable in relation to the findings. The comparison group had statistically higher scores throughout the programme, on the aspects of coping which related to the persons ability to take advantage of recreational and leisure activities that are relaxing and satisfying, and the ability to systematically problem solve as a means of avoiding stress. However, controlling for these increased abilities did not influence the findings of the research.

Therefore the study findings accepted the null hypothesis "that there is no relationship between attendance at this series of stress management workshops and the level of stress that the attendees feel."

Limitations of the study design

Sample size

These findings need to be considered in relation to the limitations in the research design. The sample size of 18 for each sample group (n = 36) was small. This may have influenced the statistical power required to detect a significant difference between the two groups. LoBiondo-Wood and Haber (1994), express the view that a small sample increases the likelihood of lack of stability in that it "increases the probability of obtaining a non representative sample" (p.302). However, there was no other option available in this particular research but to have a sample of 36, as this was the total from both

groups following informed consent and matching from a possible hospice population of 55 from the 2 hospices.

Attendance rate

Full participation in the intervention was variable. This did not allow all of the participants to gain the full benefit of the programme; that is, attending all six stress management workshops). Less than full attendance may have impacted on the ability of the programme to influence attendees' levels of stress, and therefore, may have reduced the measured effectiveness of the intervention. The lowest attendance rates were found in the nursing staff, which as a group attended 3 - 4 workshops. This attendance was low when compared with the chaplain and the patient care support staff members, who attended 5 workshops and the administrative support group, who attended 5 - 6 workshops. The minimum attendance was three programmes before exclusion from the study. One nurse, who expressed feelings of being stressed on several occasions prior to the implementation of the programme, was excluded from the research because of attendance at less than three workshops.

Although not able to be substantiated through the research design, anecdotal information conveyed to the researcher, indicated that the group of nurses with the lowest attendance rates, were the least able to afford not to attend, because they were the group who indicated that they were feeling stressed prior to the implementation of the stress management programme. Furthermore, this group

actively and supportively contributed to the discussion of the make-up of the programme prior to its implementation. The low attendance of the nurses occurred despite verbal confirmation by them, of looking forward to and enjoying the stress management programme, and in particular the respect they indicated that they felt for the psychologist who ran the programme.

Similar studies have shown poor attendance rates. A stress management programme by Ritter, Tolchard, and Stewart (1995) found attendance to be poor, when only three out of 24 participants attended all five programmes in the stress management programme they implemented. Reasons given for the low attendance rate by the sample were that a busy workload precluded attendance. Furthermore, Taylor (1986) indicates that work overload is one of the leading causes of workplace stress. Work overload, with long hours, higher expectations of work standards, and the expectation of having to achieve too many tasks in the working day all contribute to this stress.

Although the nurses in the Northland hospice acknowledged that they enjoyed and appreciated the programmes they did attend, a busy workload was the major reason verbalised by them as an explanation for their low attendance. A possible explanation for this could be that, as already stressed people, they found attending the classes another invasion of their already busy schedule, taken up with providing care for others.

Literature supports the view that it is a common failing within the nursing profession, for nurses to put other peoples' needs before their own and not to act proactively for their own well-being (Palmer, 2000). Nurses must not be ashamed to say that they are stressed (Cullen, 1995). Wynne, Clarkin, and McNieve (1993) emphasise that the consequences of nurses not caring for themselves could render them with levels of stress, which impede their ability to effectively care for their patients. Consideration needs to be given to self-care as a prerequisite for more effectively being able to address the needs of others.

Recommendations for further research

Nursing has long been recognised as a stressful occupation (Wynne, Clarkin, & McNieve, 1993). A report by the Health Education Authority (1998) includes nursing as one of four high stress occupations, along with police, social work, and teaching. Literature clearly outlines the devastating psychological, physiological, and socio-economic effects of workplace stress, but research has yet to find a clear answer to the management of stress. The consensus of opinion within the literature is that stress management programmes are needed in the workplace to try and address the growing issues of stress reported by nurses worldwide.

Coping with stress is dependent on service management recognising that stress exists and providing better workload monitoring and support, in the form of

effective stress management programmes (Craughwell, cited in Wynne, Clarkin & McNeive, 1993, p.1; Rogers and Nash, 1993). However, the Northland hospice research highlights the difficulties of developing programmes to address the stress reported by nurses. Poor attendance rates by the nurses precluded an effective evaluation of the programmes success in addressing current issues of stress. Craughwell suggested the introduction of a stress management programme, coupled with workload monitoring by management, may assist with controlling stress levels for hospice nurses.

Furthermore, other interventions apart from stress management programmes have been evaluated as having some potential in alleviating stress. These are clinical supervision (Ellis, 1997; Rogers & Nash, 1993), and debriefing following stressful events (Bordow & Porritt, 1979; Chemtob et al., 1997; Jenkins, 1996; Raphael, 1986). There is debate in the literature around the efficacy of clinical supervision, but generally the literature supports clinical supervision as a valuable tool offering nurses guidance and support in their practice setting (Ellis, 1997).

Similarly, opinions differ in the literature on the value of debriefing, but generally the ability to discuss the horror of the event is considered a vital component in the resolution of the emotional impact of the incident (Everly & Mitchell, 1997; Raphael, 1986). Both approaches may have the potential to augment the potential the of stress management programme introduced into the Northland hospice to reduce levels of stress.

Both group clinical supervision and debriefing has been tried at the Northland hospice in the past. The clinical supervision provided was not subjected to research on its effectiveness, but there is anecdotal evidence that it was not well attended. Debriefing was a successful tool in use within the Northland hospice setting, being used to address immediate stressful issues around caring for patients and their families. It was carried out on request by staff but was not requested frequently within the year prior to the research study. The effectiveness of debriefing was also not researched in the hospice setting.

Given the literature that supports clinical supervision and debriefing, there may be some validity in readdressing both practices and offering them in conjunction with a stress management programme. It would be imperative that the effectiveness of such a comprehensive programme be evaluated. Kivisto and Couture (1997) acknowledge that no single technique will address the problem of stress, but advocate combining stress management education with other programmes, to counter the experience of workplace stress. It would be advisable for such programme development to be considered in conjunction with achieving manageable workloads. Workload management needs to be set at a level that allows nurses to attend support programmes, without feeling that they were not meeting the needs of their patients.

The recommendation for further research is, therefore, to offer a comprehensive support programme, which includes a combination of clinical supervision, debriefing and a stress management programme. Each support programme could

then be evaluated to determine the levels of stress reduction for attendees who attended all three, support programme options.

In summary, a replication of the quasi-experimental pre-test- post-test method used in the Northland hospice research, could be applied to this new initiative, firstly, to assess the stand-alone value of each component of the package, and secondly, to evaluate the effectiveness of the package as a whole in addressing the issue of workplace stress. The results would help to determine which, if any, of these interventions are the most appropriate in addressing the issue of stress for hospice staff. The model of evaluation used within this present research lends itself to refinement and then application, in order to prove if such interventions are effective in addressing the issue of stress for hospice staff.

Study Conclusion In conclusion, research into ways of addressing the issue of stress must remain a priority. Although the main goal of the Northland hospice research was achieved, that of evaluating the effectiveness of a stress management programme for hospice staff, the research has introduced more questions than it has answered. The major issue remains that workplace stress within many professions, including the hospice setting, is an immediate, important and serious issue. Manageable workloads are a key to managing nursing stress levels. Further research remains essential, to continue to seek out appropriate ways to help staff in the hospice setting to understand and recognise their stresses, and to provide them with the ability to manage stress in contemporary hospice workplaces.

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Appendices

Appendix A

Psychological Strain Questionnaire

Make your ratings in Section Two of the Rating Sheet

1. I don't seem to be able to get much done at work.
2. Lately, I dread going to work.
3. I am bored with my work.
4. I find myself getting behind in my
5. I have accidents on the job of late.
6. The quality of my work is good.
7. Recently, I have been absent from work.
8. I find my work interesting and/or exciting.
9. I can concentrate on the things I need to at work.
10. I make errors or mistakes in my work.
11. Lately, I am easily irritated.
12. Lately, I have been depressed.
13. Lately, I have been feeling anxious.
14. I have been happy, lately.
15. So many thoughts run through my head at night that I have trouble falling asleep.
16. Lately, I respond badly in situations that normally wouldn't bother me.
17. I find myself complaining about little things.
18. Lately, I have been worrying.
19. I have a good sense of humor.

20. Things are going about as they should at work lately.
21. I wish I had more time to spend with close friends.
22. I often quarrel with the person closest to me.
23. I often argue with friends.
24. My spouse and I are happy together.
25. Lately, I do things by myself instead of with other people.
26. I quarrel with members of the family.
27. Lately, my relationships with people are good.
28. I find that I need time to myself to work out my problems.
29. Lately, I am worried about how others at work view me.
30. I have been withdrawing from people lately.
31. I have unplanned weight gains.
32. My eating habits are erratic.
33. I find myself drinking a lot lately.
34. Lately, I have been tired.
35. I have been feeling tense.
36. I have trouble falling and staying asleep.
37. I have aches and pains I cannot explain.
38. I eat the wrong foods.
39. I feel well.
40. I have lots of energy lately.

(Osipow, 1998)

Appendix B

AUCKLAND UNIVERSITY OF TECHNOLOGY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

Participant Information Sheet
INTERVENTION GROUP

Greetings, Kia ora,

My name is Tina Darkins, and I am seeking to undertake a piece of research into the effectiveness of the Stress Management Programme about to be introduced at hospice.

Please read the following and decide if you would like to be part of this research.

Project Title: **The Evaluation of a Stress Management Programme for Hospice Staff.**

Invitation: To all staff employed at North Haven Hospice, 24a Takahe Street Tikipunga, Whangarei.

What is the purpose of the study: To evaluate the effectiveness of a stress management programme for staff, to be introduced into hospice.

How is a person chosen to be asked to be part of the study?: All staff will have the invitation and opportunity to consent to participate in the study.

Can I join the study?: Yes if you agree to sign the consent form and commit to attend the 6 workshops.

What happens in the study?: After providing informed consent and demographic information you will be asked to fill out three, 3-part anonymous questionnaires on workplace stress prior to attending 6 stress management workshops. The workshops will be held in work-time for 2 hours every 2 months on a Wednesday afternoon from 1.30 to 3.30pm. At the end of this year- long programme you will be asked to fill out a duplicate series of anonymous questionnaires immediately after the programme and again one month later. A comparison of the results of the two sets of questionnaires will contribute to an evaluation of the effectiveness of the programme. The first questionnaire will be presented in January 2001, the second in January 2002 and the third in February 2002.

What are the discomforts and risks?: There is the possibility that you may occasionally feel some emotional discomfort during the workshops if the subject matter triggers memories of situations that were stressful for you. Assistance, in the form of individual counselling will be made available to you to counter any discomfort that you may experience.

What are the benefits?: The benefits may be that the opportunity afforded to you within the workshops allows you to better understand and hence cope with workplace stress, and to provide you with relaxation techniques.

What compensation is available for injury or negligence?: The opportunity to seek one to one counselling or supervision will be available on request either during or following the programme.

How is my privacy protected?: All information is considered confidential and all data is presented as aggregate data only. The consent forms and demographic details will be stored in a locked cupboard at AUT in the care of the supervisor and will be destroyed by shredding after 6 years.

Costs of Participating: The participants of the programme will incur no cost.

Opportunity to consider invitation: Each member of staff will be given the opportunity to consider informed consent prior to participation. Attendance on the programme is not compulsory. If you do not wish to participate in the study, you may still attend the stress management workshops.

Participant Concerns : Important notice.
Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor Brian McKenna, C/- School of Nursing and Midwifery, Auckland University of Technology, P.O. Box 92006 Auckland, Phone: 09-917 9910 Extn 7163. E-mail brian.mckenna@aut.ac.nz.
Concerns regarding conduct should be notified to the Executive Secretary, AUTEC, Madeline Banda, madeline.banda@aut.ac.nz, 917 9999 ext 8044.

Approved by the Auckland University of Technology Ethics Committee on ……
AUTEC Reference number …….

AUT
AUCKLAND UNIVERSITY OF TECHNOLOGY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

Participant Information Sheet
COMPARISON GROUP

Greetings, Kia ora,

My name is Tina Darkins, and I am seeking to undertake a piece of research into the effectiveness of the Stress Management Programme about to be introduced at hospice.
Please read the following and decide if you would like to be part of this research.

Project Title: **The Evaluation of a Stress Management Programme for Hospice Staff.**

Invitation: To all staff employed at South Auckland Hospice.

What is the purpose of the study?: To evaluate the effectiveness of a stress management programme for staff, to be introduced into North Haven Hospice.

How is a person chosen to be asked to be part of the study? All available staff will have the invitation and opportunity to consent to complete the questionnaires. If you give informed consent then some demographic data will be obtained from you. Participants at South Auckland Hospice will serve in a comparison group to compare their levels of stress with staff at North Haven Hospice who are taking part in a stress management programme. It is important that the people in the comparison group are similar to the participants on the basis of age, gender, ethnicity and years of experience. If you can be matched for the comparison study you will be approached to undertake the other questionnaires outlined below.

Can I join the study? Yes if you agree to sign the consent form and meet the matching criteria outlined above.

What happens in the study? After providing informed consent and demographic information you will be asked to fill out three, 3-part anonymous questionnaires on workplace stress. The first questionnaire will be presented in January 2001, the second in January 2002 and the third in February 2002.

What are the discomforts and risks? There is the possibility that you may occasionally feel some emotional discomfort during the completion of the questionnaire. If the subject matter triggers memories of situations that were stressful for you, assistance, in the form of individual counselling will be made available to you to counter any discomfort that you may experience.

What are the benefits? The benefit may be that you will have the opportunity to assess your stress levels. At the end of the study you will be provided with results of the completed questionnaires.

What compensation is available for injury or negligence? There is no possibility of injury or negligence because there is no form of intervention with the participants.

How is my privacy protected? All information gathered will be kept in the strictest confidence. The consent forms and demographic details will be stored in a locked cupboard at AUT in the care of the supervisor and will be destroyed by shredding after 6 years.

Costs of Participating: The participants in the comparison group will incur no cost.

Opportunity to consider invitation: Each member of staff will be given the opportunity to consider informed consent prior to participation.

Participant Concerns: Important notice.
Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor Brian McKenna, C/- School of Nursing and Midwifery, Auckland University of Technology, P.O. Box 92006 Auckland, Phone: 09-917 9910 Extn 7163. E-mail brian.mckenna@aut.ac.nz.

Concerns regarding conduct should be notified to the Executive Secretary, AUTEC, Madeline Banda, madeline.banda@aut.ac.nz, 917 9999 ext 8044.
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Approved by the Auckland University of Technology Ethics Committee on …….
AUTEC Reference number ……..

AUCKLAND UNIVERSITY OF TECHNOLOGY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

Appendix C

Consent to Participation in Research

Title of Project: The Evaluation of a Stress Management Programme for Hospice Staff
Project Supervisor: Brian McKenna
Researcher: C.L. (Tina) Darkins

- I have read and understood the information provided about this research project.
- I have had an opportunity to ask questions and to have them answered.
- I understand that the interview will not be audio-taped and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way. If I withdraw, I understand that all relevant tapes and transcripts, or parts thereof, will be destroyed
- I agree to take part in this research.

Participant signature:.....
Participant name:

Date:

Project Supervisor Contact Details: Brian McKenna. C/- School of Nursing and Midwifery. Auckland University of Technology. P.O. Box 92006, Auckland. Phone 09-917 9910 extn 7163. E-mail brian.mckenna@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on …….
AUTEC Reference number …….

Appendix D

Kaumatua letter of support

Pehiaweri
Maori Church and Marae Inc
P 0 Box 7107 Tikipunga, Whangarei

10 November 2000

The Manager.
Te Whare Humarie
Tikipunga

Te Whakatauki

Hutia te rito
0 te harakeke
kei hea ra te komako
ui mal kia au
he aha te mea nui o te ao
makau e ki atu
he tangata, he tangata, he tangata

The Proverb

Pluck the centre of the flaxbush
where will the Bellbird be
ask me what is the greatest thing on earth
I will answer "It is people, it is people, it is people".

Tehei Mauriora

E nga iwi, E nga waka o riga hau e wha. Tena koutou, tena koutou, tena koutou katoa.
Te iwi ko moe iroto te Ariki haere, haere, haere,
Haere atu ki te kainga o te Ariki, moe rnai, moe mai, moe mai.

Behold the breath of life

To the people, to all the canoes of the four winds, greetings, greetings, greetings to all.
To those people who have gone to be with the Lord, farewell, farewell, farewell.
Farewell as you go to the house of the Lord, sleep well, sleep well, sleep well.

Tena Koe Tina,
Greetings, and good health to you and all yours today. I reply to your letter dated 1st November in which you ask for my approval for your desire to carry out your thesis for your Masters of Nursing at North Haven Hospice.

Not only as the Kaumatua of Te Whare Humarie but also as a personal friend you most certainly have my approval indeed I go further and give my blessing and encouragement on all your endeavours as you set out on the task ahead. I am particularly taken by your thoughts in asking before you set out on the journey, a refreshing attribute not often found in this day and age. I would also like you to note that your work in obtaining your thesis, could not I believe, be obtained in a more appropriate setttng, health and the welfare of people is a tradition long associated with my family in the area of Tikipunga.

Whala e koe te iti kahurangi
Ki te tuohu koe, he maunga teitei

Seek your treasure you value most dearly
If you bow your head, let it be to a lofty mountain.

Only when the appropriate preparations are applied can dreams find fruition, so may God bless and guide you through out your studies. Should you ever feel that I could be of any assistance please do not hesitate to ask.

No reira Te Whaea 0 Te Whare Humarie, tena koutou, tena koutou, tena koutou katoa,

signed: Sam Kake
Kaumatua 0 Te Whare Humarie